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The Journal of THE AMERICAN DIETETIC ASSOCIATION

VOL. II DECEMBER, 1926 NO. 3

CONTENTS

President's Address — Ruth Wheeler, Ph.D.

The Principles of Diet Control in Nephritis with Especial Reference to Protein and Salt Restriction — John P. Peters, M.D.

The Importance of the Protein Requirement of Children in Modern Specific Diet Therapy — Walter M. Bartlett, M.D.

Standardization of Courses for Student Dietitians

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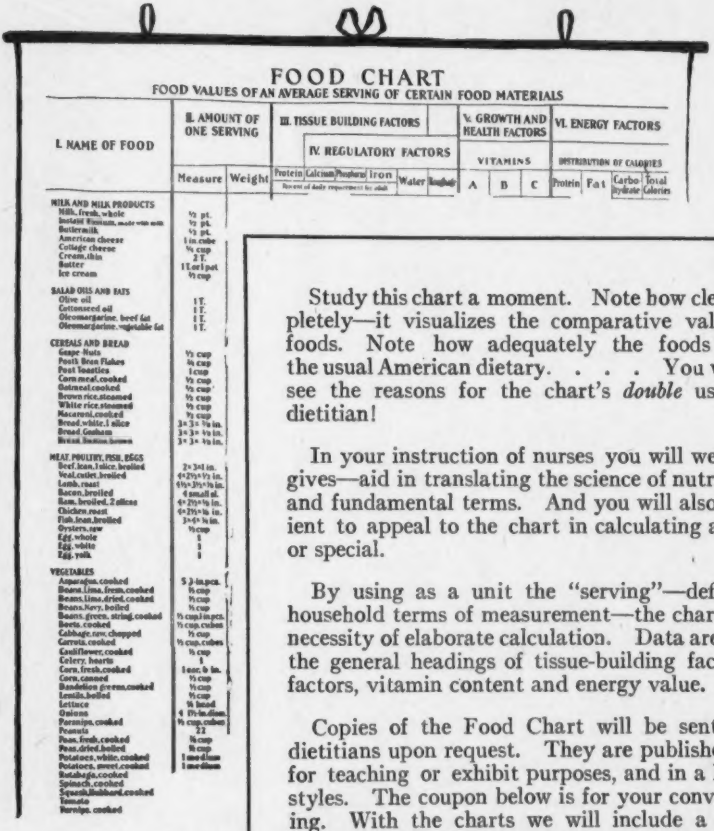
This FOOD CHART
simplifies planning and teaching



FOOD CHART

FOOD VALUES OF AN AVERAGE SERVING OF CERTAIN FOOD MATERIALS

I. NAME OF FOOD	II. AMOUNT OF ONE SERVING		III. TISSUE BUILDING FACTORS					V. GROWTH AND HEALTH FACTORS			VI. ENERGY FACTORS			
			IV. REGULATORY FACTORS					VITAMINS			DISTRIBUTION OF CALORIES			
	Measure	Weight	Protein	Calcium	Phosphorus	Iron	Water	A	B	C	Protein	Fat	Carbo-hydrate	Total Calories
			Percent of daily requirement for adult											
MILK AND MILK PRODUCTS														
Milk, fresh, whole	½ pt.													
Instead Fluid, made with water	½ pt.													
Buttermilk	½ pt.													
American cheese	1 in. cube													
Cottage cheese	¼ cup													
Cream, thin	1 T.													
Butter	1 T. or 1 pat													
Ice cream	½ cup													
SALAD OILS AND FATS														
Olive oil	1 T.													
Cottonseed oil	1 T.													
Oleomargarine, beef fat	1 T.													
Oleomargarine, vegetable fat	1 T.													
CEREALS AND BREAD														
Grape-Nuts	½ cup													
Puffed Rice Flakes	¼ cup													
Post Toasties	1 cup													
Corn meal, cooked	½ cup													
Oatmeal, cooked	½ cup													
Brown rice, steamed	½ cup													
White rice, steamed	½ cup													
Macaroni, cooked	½ cup													
Bread, white, 1 slice	3 × 3 × ½ in.													
Bread, Graham	3 × 3 × ½ in.													
Bread, Boston, brown	3 × 3 × ½ in.													
MEAT, POULTRY, FISH, EGGS														
Beef, lean, 1 slice, broiled	2 × 3 × 1 in.													
Veal, cutlet, broiled	4 × 2½ × ½ in.													
Lamb, roast	1½ × 2½ × ½ in.													
Bacon, broiled	4 small sl.													
Ham, broiled, 2 slices	4 × 2½ × ⅛ in.													
Chicken, roast	6 × 2½ × ⅛ in.													
Fish, lean, broiled	3 × 4 × ½ in.													
Oysters, raw	½ cup													
Egg, whole	1													
Egg, white	1													
Egg, yolk	1													
VEGETABLES														
Asparagus, cooked	5 2-in. pcs.													
Beans, lima, fresh, cooked	½ cup													
Beans, lima, dried, cooked	½ cup													
Beans, Navy, boiled	½ cup													
Beans, green, string, cooked	½ cup, 1 in. pcs.													
Beets, cooked	½ cup, cubes													
Cabbage, raw, chopped	½ cup													
Carrots, cooked	½ cup, cubes													
Cauliflower, cooked	½ cup													
Celery, hearts	1													
Corn, fresh, cooked	1 ear, 6 in.													
Corn, canned	½ cup													
Dandelion greens, cooked	½ cup													
Lentils, boiled	½ cup													
Lettuce	½ head													
Onions	4 1½-in. diam.													
Parsnips, cooked	½ cup, cubes													
Peanuts	22													
Peas, fresh, cooked	½ cup													
Peas, dried, boiled	½ cup													
Potatoes, white, cooked	1 medium													
Potatoes, sweet, cooked	1 medium													
Rutabaga, cooked	½ cup													
Spinach, cooked	½ cup													
Squash, Hubbard, cooked	½ cup													
Tomato	1													
Turnips, cooked	½ cup													

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Vol. 2, No. 3 DECEMBER, 1926

The Journal of

The American Dietetic Association

PRESIDENT'S ADDRESS[1]

RUTH WHEELER, PH.D.

Professor of Physiology and Nutrition, Vassar College, Poughkeepsie, New York

Again we take stock of past and present and try to estimate the future. The nine years progress of the Association is tremendous to contemplate. Evidently we do not belong among the conservatives whom some one defined as "People who think that nothing should ever be done for the first time;" nor are we burdened with the "hick complex." A Baltimore paper recently said, "If whatever is seems right and the thought of change affrights, one has the true hick complex." Nothing like that is the matter with this Association. Progress is our watchword.

Last year we raised our standard for membership in order to stimulate young people now getting ready for the profession to prepare themselves so broadly in general academic subjects as well as in technical ones, that no door they are capable of entering may be closed to them because of too narrow a foundation for their profession. This is in line with the tendency in sister professions. Nurses whom we must teach require three years beyond high school and are asking more than that of their instructors. Doctors have at least six years beyond high school, and this year the hospital association discussed advanced university preparation for hospital executives. For older experienced women who have proved themselves, the question is entirely different, but the younger ones now getting their training must be prepared for the future. On Sunday we had a delightful meeting of representatives of many geographical groups, many of them representing chiefly associate members. It may be well to have such conferences yearly and discuss the interests of associate and junior members.

[1] The American Dietetic Association, Atlantic City, October 11, 1926.

A year ago we established a quarterly journal which was distributed free to members and others for one year. It was expensive, but we had some savings that could properly be used for the purpose and the executive committee omitted its midwinter meeting for two years in order that the rather considerable travelling expenses involved might be contributed to the launching of our official organ. It is true that there were already too many magazines and journals in the world, but a field as large as ours, an association as significant as ours, needs an official organ. It has received much praise from high quarters. The only pessimistic note I have heard is a doubt as to whether it can maintain its high standard. It can do so only if it receives active support from all members of the association of which it is the official organ. Every member owes it to her profession to subscribe for it—not only because it is a good JOURNAL, but because it is the official publication of the Association.

Quite as important a form of support is the sending in of material. If your local association has a good meeting, send in a well-written (typed) report—in good shape to publish. We have no paid staff to whip material into shape that shall be a credit to the field. If one of your doctors is doing some research or getting some valuable clinical results along nutrition lines, get him to summarize it for the JOURNAL. A third contribution is frank suggestion of lines of work not covered in the JOURNAL with suggestions of definite people who can be depended upon to cover them in good shape. Nobody but the administrators can contribute good material on administration; only the dispensary people can tackle dispensary problems; so if anything important is being slighted, hunt up somebody who can write well to fill in the omission.

The Placement Bureau is increasing in usefulness. Hospitals are appealing to it more and more. Coöperate with it more generously and more promptly. Report vacancies when you are free to do so. Write of good dietitians who need change and advance.

The executive office has proved a unifying and stabilizing factor to a degree beyond our largest hopes, but the very efficiency of the office threatens to destroy the secretary. Besides carrying the business of the JOURNAL, itself no small task, she has had the Placement Bureau and from twenty-five to thirty letters a day with requests that take from five minutes to five days to execute. Ten people answer her letters promptly, but only "return mail" will satisfy anyone in replies from her. During the last three years she has accomplished much by pursuing a continuous policy with exhibitors. As a result we have gained many

permanent friends among commercial people. This year the exhibit is small because of delays entirely beyond her control; but it is of high quality. One can learn much by talking with those in charge of the booths.

The sections can perhaps be left to speak for themselves for the most part. The education section has completed its outline for student dietitian courses, incorporating suggestions received last year. After further suggestions, it may undertake the classification of hospitals according to the course given. The administration section has worked out ledger sheets which were proposed to the food and equipment section of the American Hospital Association and after discussion here and possible modification, should be vigorously promoted in order that food cost records may be studied from a nutritive standpoint. No food cost level can be justified unless it can be shown that the food bought allowed adequate nutrition to patients and personnel, given proper preparation and serving and reasonable waste. The social service section has done much to clarify the field. It is ready for specific work next year. Diet therapy will always have a changing current problem, changing much from year to year to utilize the material that comes out of the research laboratories.

So much for our past and present. What of the future? Our purpose remains what it was when we started nine years ago. How are we to accomplish it? Sister associations pursue one or both of two methods chiefly, political and scientific. Which are we to emphasize? Our aim is to stimulate growth, of the profession, the Association, individual members, not by excess of carbohydrate, plumpness, size, numbers of followers; not by stimulants giving great apparent force, money, power, rights; but by all nutrients balanced; good solid all-round growth with stability and endurance. I hope we shall never have a huge commercial exhibit; never have a huge money surplus. For the last nine months our surplus is eleven dollars. We have not put back all of the savings used in launching the JOURNAL. That we must do. The JOURNAL must be approximately self-supporting. The Placement Bureau must be entirely self-supporting. But after those things are done, eleven dollars surplus is just about right. Much money is as dangerous to a professional association as debt. Let us avoid political methods and stick to scientific ones; scientific methods of administration, of education, of feeding the people under our care. Let us strive for balance and coöperation above all things; join ourselves only to an institution, a product of an organization that we can whole-heartedly support and then support it not only

by enthusiasm, but when necessary by frank, honest criticism; by patient waiting for changes that cannot come in a day. Let us coöperate among ourselves in these same ways; by difficult even unpleasant frankness and honesty when we must, but by kindly understanding always. A reform we have worked hard to put over may be assisted tremendously by criticism from outside that is painful at the moment, if only we can be detached and impersonal in our attitude of mind.

The best year is before us. I close my term of office with the utmost confidence in the future of the Association and all good wishes to you all.

THE PRINCIPLES OF DIET CONTROL IN NEPHRITIS WITH ESPECIAL REFERENCE TO PROTEIN AND SALT RESTRICTION[1]

JOHN P. PETERS, M.D.

Associate Professor of Medicine, Yale University

The subject which I have been asked to discuss today is so large that it could not possibly be covered in twice the time at my disposal. I shall, therefore, limit my paper to certain reflections that arise from studies on the protein metabolism and electrolyte equilibrium in nephritis that have been carried out in our laboratory in the last two or three years.

It may or may not be true that protein feeding can in itself produce nephritis. In the treatment of the disease we face an accomplished fact and must consider the metabolic needs of the individual. To save the kidneys while the patient dies is hardly satisfactory. It is not certain—one might even say it is highly uncertain—that retention of nitrogenous waste products is in itself deleterious to the organism. But let us adhere to general practice and opinion and assume that such retention is harmful. The aim of low protein diets, then, is to reduce or prevent this retention by diminishing the nitrogen catabolism and the demand upon the kidney for the excretion of nitrogenous waste products.

It is entirely unnecessary to tell a group of dietitians that this can not be accomplished by merely reducing the protein content of the diet. Patients do not necessarily live on the diets they are fed. If these diets are deficient in protein, protein to make up the deficit is provided from the body tissues, probably chiefly from muscle tissue. The maintenance of a minimum nitrogen metabolism and at the same time of nitrogen equilibrium (that is, a condition in which an individual is not forced to draw upon his essential tissues for subsistence), can only be effected by the administration of adequate amounts of both protein and calories. If calories are deficient more protein will be burned; if protein sinks below a certain level all the calories in the world will not prevent wasting.

[1] Presented before the American Dietetic Association, October 13, 1926

Actual minimal nitrogen metabolism can, of course, be best secured by giving high calories of carbohydrate and fat alone. Such treatment, if practical, might well be used to combat the acute stages of the disease, but can be regarded only as a temporary expedient. For more prolonged treatment (and the main object of treatment in a chronic disease like nephritis is to prolong treatment) a subsistence diet with adequate protein must be given. It therefore becomes necessary to determine what the protein requirements in nephritis are and it is to this end that our studies have been directed.

Various figures have been given for average minimum nitrogen requirements, perhaps the most commonly cited is two-thirds of a gram of protein per kilo of body weight. Whether this is a proper figure or not, it is entirely improper to assume that it is correct, as is so often done, and then to state that two-thirds of a gram of protein per kilo is sufficient for the needs of any given individual. If this does represent an average minimum figure and were fed to the individuals in this audience one could reasonably expect that nitrogen equilibrium would be attained by about half the members of the group, but the unnecessarily generous amount of protein given to this half would benefit the other starved half not a whit. It is the very essence of average figures that they obliterate the peculiarities of individuals. But it is individuals that must be treated. To provide for these individuals who live at an excessively high level of protein metabolism, under ordinary conditions which do not permit the determination of nitrogen equilibrium, something over the average minimum nitrogen requirement must be given. In our clinic it is the practice not to reduce the protein below one gram per kilo of body weight, calculated on the basis not of actual weight but of the amount the patient should weigh if he were normally nourished. This may seem excessive and is definitely above the requirements of some patients, but such studies as we have made, have shown that it leaves no great margin of safety for most patients and often falls far short.

Besides this enough fat and carbohydrate calories must be given to restore and maintain a normal state of nutrition. It is too little recognized that nephritis is a wasting disease. The first part of table 1 shows the weights of a group of adult male patients with chronic interstitial nephritis and without edema. As you can see, the general weight is lower than one would expect to find in a normal group of adults. These patients have been selected from our hospitalized cases for presentation not because of their emaciation, but only because they had severe ne-

phritis without edema or other complications. Most of them were observed for some time and have more than one weighing recorded. In practically every instance the patients had lost weight in spite of comparatively generous diets. There is not time to discuss the various

TABLE 1

NUMBER	WEIGHT	EDEMA	TIME
	Adult males with chronic interstitial nephritis		
	kilos		
15012	62.8	0	
	54.9	+	3 months later
22684	61.9	0	
	60.5	0	1 week later
33030	51.0	0	
26409	53.6	0	
	50.0	0	3 weeks later
28049	59.2	0	
	56.0	0	3 weeks later
29635	57.3	0	
	57.8	0	1 month later
15900	59.0	0	
	57.0	0	3 years later
29267	67.9	0	
	59.0	0	21 months later
	51.1	0	6 weeks later
	Adult males with chronic parenchymatous nephritis		
29122	69.2	++++	
	60.1	0	
31190	71.9	+++	
	66.4	±	
29563	77.4	+++	
	63.7	0	
50265	56.7	++	
	51.6	0	
34854	71.5	+++	
	63.2	0	
	59.6	0	1 year later
35628	76.4	+++	
	63.9	0	

factors that may be responsible for this wasting. These evidences of malnutrition are found in all types of nephritis, but may be masked by edema which contributes a specious well-fed look to some patients. This is illustrated by the cases in the second half of table 1. The pa-

tients in this series were adult males with chronic parenchymatous nephritis and edema and the weights given in every case were obtained while they had edema and after the edema had disappeared. The malnutrition in these cases is less evident than that of patients with chronic interstitial nephritis. This is only partly due to the difference in the character of the two diseases. In part it is due to the fact that three of the six patients in the last series were 6 feet tall or more. The wasting process is not continuous but becomes exaggerated by every aggravation or exacerbation of the disease. And it is during these exacerbations, when the protein metabolism is high, that rapid rises of non-protein nitrogen in the blood occur. The increased destruction of protein and nitrogen accumulations may both be better allayed if not prevented by the administration of high calories than by over zealous reduction of protein in the diet.

Although albuminuria is such a well recognized symptom of nephritis, its effect on protein metabolism has been almost entirely neglected. Albuminuria represents the excretion of protein probably derived by direct filtration from the serum. The nitrogen thus lost differs from that of normal urine in the fact that it has not been subjected to the usual catabolic processes. One could infer that it has also served no useful function in the body. Such seems to be actually the case. Studies in our laboratory have shown that nephritis patients excrete just as much non-protein nitrogen in the urine as do normal persons under similar dietary conditions. The nitrogen lost as albumin represents an extra demand for nitrogen and must be satisfied by the administration of sufficient protein over and above the normal metabolic requirements to replace the protein lost as albumin in the urine. The latter is no negligible quantity; it may amount, in some cases to as much as 20 grams of protein a day. It has also been ascertained that patients with albuminuria if given enough protein in the diet to replace the albumin loss, will retain the extra nitrogen without any increase of the blood non-protein nitrogen. In other words, protein lost in the urine as such can be replaced by food protein. As there is no clear evidence that high protein diets augment albuminuria the desirability of giving adequate protein to these patients can hardly be questioned. But even if high proteins did aggravate albuminuria, it would hardly do to minimize albuminuria at the expense of the general nutrition of the patient.

In those types of nephritis in which most profuse albuminuria is found, the proteins of the plasma are greatly reduced and edema is common. It is more than probable that the low plasma proteins are

at least contributory factors in the production of edema. The reduction of proteins has usually been considered a direct result of the loss of albumin in the urine. Low plasma proteins are, however, as we have shown (3), regularly observed in diabetic patients with extreme malnutrition and protein starvation. More recently studies have been made of various conditions of extreme malnutrition and again low plasma proteins have been observed in most cases. All these facts suggest that reduction of plasma proteins is an indication of protein starvation and malnutrition and can develop without the intervention of albuminuria. Edema is frequently observed in these patients. Studies of parenchymatous nephritis (so-called nephrosis or the edematous type of nephritis) have revealed the fact that patients with this condition have an enormous ability to retain nitrogen over long periods when they are fed an excess of protein and that this nitrogen storage is attended by no elevation of the blood non-protein nitrogen. The only deductions one can make from these facts are that these patients, either because of the wasting nature of the disease or the misguided restrictions to which they have been subjected by physicians or dietitians, have been starved of protein and are therefore retaining protein to replenish their wasted tissues. It is quite inconceivable that retention of nitrogen for the restoration of normal tissue can be deleterious to the kidney. Certainly it does not increase blood non-protein nitrogen. Even if it did cause *moderate* non-protein nitrogen increases, it might not be harmful. It is at last becoming recognized that urea is a natural and useful diuretic and many of us are using it to advantage in selected cases. It may not be amiss to say, what must be perfectly obvious, that the malnutrition that results from protein starvation can not be relieved by any other food than protein. This was clearly demonstrated by studies of famine subjects during and just after the war.

These facts are well illustrated by the data in table 2, which show, in abstract form, the results of nitrogen metabolism studies on two cases of chronic parenchymatous nephritis with edema. One of these patients, as you will see from column 2, was observed for 64, the other for 92 continuous days. All values in these tables have been expressed in grams of protein rather than in terms of nitrogen. For the calculation of nitrogen balances both stool and urine nitrogen were determined. The most notable point in the tables is the total protein stored, which appears at the bottom of column 7. The first patient stored 341 grams of protein during his total period of observation, the second patient stored 1215 grams. This storage was not attended by an elevation of the

blood non-protein nitrogen, as can be seen from the figures in the last column. It must represent, therefore, the formation of new tissue protein. Such an ability to store protein has been observed only in individuals who had been previously starved of protein. Columns 6 and 9 give, respectively, the amount of protein fed and the amount of protein metabolized in grams protein per kilogram of body weight. The protein catabolism is calculated from the non-protein nitrogen excretion. It is quite obvious that increasing dietary protein within the limits of our experiments does not affect the nitrogen metabolism

TABLE 2

1	2	3	4	5	6	7	8	9	10
PERIOD	NUMBER OF DAYS	CALORIES	CALORIES	PROTEIN INTAKE		NITROGEN BALANCE	ALBUMINURIA	PROTEIN CATABOLISM	BLOOD NON-PROTEIN NITROGEN
Case I									
		per day	*per kilo per day*	*grams per day*	*grams per kilo per day*	*grams protein per day*	*grams protein per day*	*grams per kilo per day*	*mgm. per 100 cc.*
1	8	2,300	35	51	0.8	−12.0	14.0	0.62	43
2	26	2,600	40	79	1.1	+8.2	15.0	0.70	47
3	30	3,300	51	62	1.0	8.0	12.0	0.53	28
Total....	64					+341			
Case II									
1	17	2,500	39	65	0.9	+0.7	11.0	0.51	61
2	27	3,200	49	74	1.0	+7.5	11.0	0.48	45
3	20	3,500	55	85	1.2	+20.0	11.0	0.52	34
4	26	3,500	55	83	1.2	+22.7	9.0	0.50	30
Total....	92					+1,215			

and should not be expected to alter blood non-protein nitrogen. The degree of albuminuria, which is shown in column 8, is also uninfluenced by the amount of protein in the diet. Attention must be called to the high calories in column 3 which alone made it possible to maintain the nitrogen metabolism at the low levels secured in these studies. Finally Case I illustrates the rôle of albuminuria in causing nitrogen wastage. During the first period of 8 days this patient received 35 calories and 0.8 gram protein per kilo per day, an adequate amount to prevent nitrogen wastage in an ordinary individual at rest in bed. Column 9 shows

that it was quite enough to cover his metabolic requirements which amounted to only 0.62 gram protein per kilo. However, he was excreting 14 grams of protein per day in his urine as albumin besides the amount he was metabolizing, which gave him a negative balance of 12 grams per day. That this loss could be prevented is demonstrated in the second period. The addition to the diet of 28 grams of protein made up the previous negative balance of 12 grams and provided an additional 8 grams of protein a day for replenishment of the tissues. The third period demonstrates the protein sparing action of non protein calories. By increasing the caloric value of the diet to 51 calories per kilo it proved possible to maintain the same positive nitrogen balance with far less protein.

It may be interesting to point out parenthetically that there is considerable evidence that famine edemas are caused by protein starvation; and, in the same connection, that Knack and Neumann (2) by refractometric methods found the plasma proteins reduced in this condition.

What then should be our dietary standards in the treatment of nephritis? During severe exacerbations of the disease associated with high blood non protein nitrogen and uremic symptoms it may be necessary or advisable as a temporary expedient to reduce the protein in the diet to an absolute minimum. If this is done *high* carbohydrate and fat calories must be given. Such diets are only suitable for short periods. For longer use reduction below 1 gram per kilo is seldom advisable. Even with this amount adequate carbohydrate and fat calories must be offered. If albuminuria is considerable, enough protein must be given in addition to replace that lost as albumin in the urine. Patients with true renal edema, low plasma proteins, profuse albuminuria and little or no non-protein nitrogen retention should receive a further addition of 10 to 20 grams a day to permit them to restore the proteins of their tissues which are invariably found to be depleted. Again fat and carbohydrate calories must not be forgotten. We are not ready to advocate the extreme high protein diets proposed by Epstein. In our experience such diets often cause digestive disturbances in these cases and Berglund (1) believes they aggravate albuminuria. Furthermore there is evidence that beyond a certain point the malnourished individual utilizes increasing increments of protein less and less economically.

The chief point which I should like to bring out concerning salt is the inadvisability of prescribing salt restriction indiscriminately for all patients with nephritis. It is often assumed, on the basis of scanty evidence, that salt retention is a regular or frequent phenomenon in

nephritis of all kinds. Studies of serum base and chloride seldom reveal high figures, even in patients with chronic parenchymatous nephritis and edema, although the values observed in this disease are usually higher than in other types of nephritis.

The first illustration shows the results of 49 serum chloride determinations on 10 patients and 37 total base determinations on 6 patients with chronic parenchymatous nephritis. The abscissa represents the concentration of base or chloride, ordinates the number of observations. The vertical lines define the normal limits of variation for each substance and the patients with normal values are indicated by the solid column. First of all it is quite evident that chloride increases of some degree can be demonstrated with considerable frequency, but that an

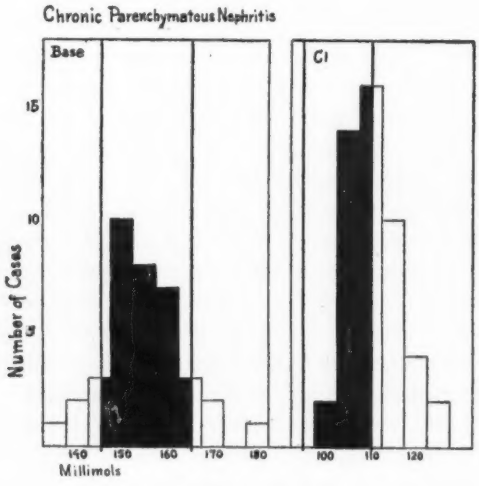

Illustration I

excess of base in the blood can seldom be demonstrated. Of course, such studies do not afford an adequate measure of the extent of salt retention in the organism. Retention of salt is usually attended by an equivalent retention of water by the body. The consequence is that the total amount of salt in the body may be greatly increased in edema without any alteration of the concentration. These patients, have, undoubtedly an inability to excrete salt which becomes striking in the edematous stages of the disease. During the non edematous intervals administration of an excess of salt will often provoke edema.

During edema few would question the advisability of strict limitation of salt to two grams or less. When the edema has disappeared, however, a more liberal allowance, up to five grams may be given with benefit. The fluid output and weight must, however, be carefully watched and salt must again be reduced at the first sign of the appearance of edema. An absolutely saltless diet is tiresome and the prolonged use of such diets, by diminishing appetite and interest in food hampers the efforts of the dietitian to overcome the malnutrition which has been emphasized above. There is no direct evidence that salt has any harmful effect other than the production of edema. Sometimes the adminis-

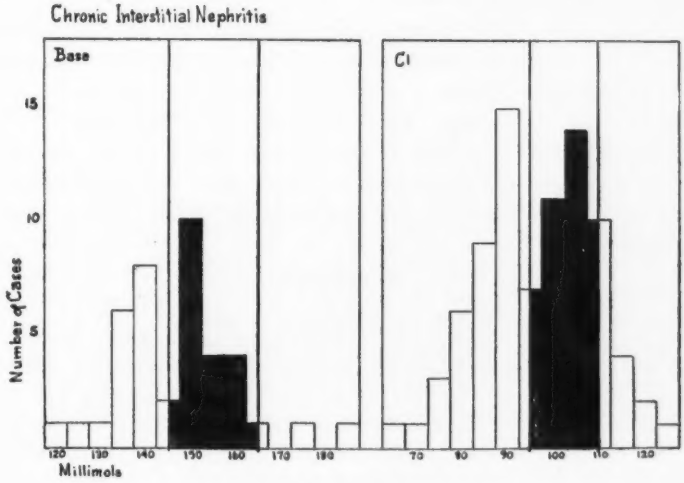

Illustration II

tration of urea, by its diuretic action will enable a patient to dispose of a moderate amount of salt which he could not otherwise receive.

In chronic interstitial nephritis, as the last illustration shows, salt retention is seldom observed. Edema is rare except as a result of cardiac decompensation. There is no obvious reason, therefore, why these patients should not receive moderate amounts of salt and be spared a certain amount of discomfort. Occasionally one does find high base and high chlorides in the serum, so called "dry salt retention." This, in our experience, is a phenomenon of certain stages and not types of the disease. Such retentions are not usually attended by especially low salt excretion and can not be interpreted as indications for salt restriction.

Low serum base and chloride are far more frequently encountered, especially in uremia, and most especially when vomiting is a serious symptom. Patients with these findings are usually extremely dehydrated. The administration of fluids alone can only, by dilution, further lower the salt concentration in the blood. Such low blood salt concentrations, in any other condition, would be considered adequate indications for the administration of sodium chloride. Only the taboo against salt in nephritis stands in the way of rational therapy. In these cases there is no more effective means of combating dehydration, acidosis, uremia and vomiting itself than the subcutaneous or even peroral administration of salts and fluids.

My plea, then, is for more generous dietetic treatment of nephritic patients with adequate consideration of the nutritional requirements of the individuals who have the disease and the nature of the metabolic disorders from which they suffer. So-called "nephritic diets," which are standardized and ordered indiscriminately for all cases are usually unnecessarily limited in one or more respects and, although convenient for physicians and dietitians, are needlessly distressing or even harmful to patients.

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THE IMPORTANCE OF THE PROTEIN REQUIREMENT OF CHILDREN IN MODERN SPECIFIC DIET THERAPY[1]

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In a previous communication (1) data has been presented showing that the actual minimum protein requirement of growing children is much lower than it had formerly been supposed. In that study it was found that the protein requirement of active, growing children was consistently satisfied by one gram of protein per kilogram of body weight providing the caloric requirements were satisfied and the diet adequately chosen from foods rich in vitamins. Indeed, in many cases, the protein requirement fell as low as six-tenths of a gram per kilogram of body weight. With the increasing demand for diet therapy in the treatment of metabolic disorders in general, the protein requirement of children has come to play an important rôle in the specific dietetic management of certain diseases. Among the disorders in which it is thought low protein therapy may be of value are grave cases of diabetes mellitus, cases of nephritis presenting definite indications, idiopathic epilepsy which responds to treatment with a ketogenic diet, and obesity.

It has long been known and recently was emphasized by Janney and Shapiro (2) that in diabetes mellitus which has gone uncontrolled by proper treatment the failure of carbohydrate combustion is associated with excessive p : 'n catabolism. That this increased combustion of protein is allayed by proper dietetic management has been shown by Newburgh, Holly and Marsh (3), and later by Petren (4).

The close parallelism of hyperglycemia and excessive protein catabolism seems worthy of note. Particularly is this interesting in the treatment of diabetic children where growth in weight and in stature depend upon absence of protein wastage and hyperglycemia. Charts 1 and 2 are incorporated here to show how both of these growth-preventing factors in the diabetic child can be avoided by adequate treatment. Chart 1 represents part of the record of an eight-year-old diabetic boy

[1] This paper was presented before the Diet Therapy Section of the American Dietetic Association at their annual convention held October 11–14, 1926, in Atlantic City, N. J.

treated by diet without insulin. Here the fall in blood sugar and the decrease in nitrogen metabolism run so nearly parallel as to appear quite dependent. Similarly in chart 2 is shown part of the record of a six-year-old diabetic boy treated by means of diet and insulin. Here likewise the relief of hyperglycemia is accompanied by a constant diminution in the total nitrogen metabolism.

CHART 1. SHOWING THE GRADUAL DECREASE IN TOTAL NITROGEN EXCRETION DUE TO RELIEF OF HYPERGLYCEMIA IN THE DIABETIC UNDER TREATMENT CONSISTING OF DIET WITHOUT INSULIN

DAY	FASTING BLOOD SUGAR	NITROGEN INTAKE	NITROGEN OUTPUT, URINE AND FECES, TOTAL	NITROGEN BALANCE
	mgm. per 100 cc.	*grams*	*grams*	*grams*
1	364	3.36	5.40	−2.04
2	233	3.36	6.10	−2.74
3	130	3.36	6.23	−2.87
4	110	3.36	4.30	−1.04
5	108	3.36	3.72	−0.36
6	114	3.36	2.89	+0.47
7	98	3.36	2.36	+1.00
8	102	3.36	2.24	+1.12

CHART 2. SHOWING THE GRADUAL DECREASE IN TOTAL NITROGEN EXCRETION DUE TO RELIEF OF HYPERGLYCEMIA IN THE DIABETIC UNDER TREATMENT CONSISTING OF DIET PLUS INSULIN

DAY	FASTING BLOOD SUGAR	NITROGEN INTAKE	NITROGEN OUTPUT, URINE AND FECES, TOTAL	NITROGEN BALANCE
	mgm. per 100 cc.	*grams*	*grams*	*grams*
1	302	3.36	9.18	−5.82
2	288	3.36	6.76	−3.40
3	211	3.36	4.56	−1.20
4	182	3.36	3.58	−0.22
5	116	3.36	3.18	+0.18
6	104	3.36	2.92	+0.44
7	110	3.36	2.29	+1.07
8	101	3.36	2.31	+1.05

Since relief of hyperglycemia is constantly associated with a cessation of excessive protein waste, whether insulin is used or simply dietetic measure alone, it renders no support to the theory that insulin is endowed with a direct protein-sparing effect in the diabetic subject. That insulin spares protein indirectly can be adequately explained by its action in making more carbohydrate calories available. This is un-

doubtedly a large factor in the experiments of Janney and Shapiro (2) on normal subjects. Thus it is that in the diabetic patient modern dietary and substitution therapy if successful in maintaining a persistently normal blood sugar, also necessarily, maintains nitrogen metabolism at a minimum, first, by virtue of the protein-sparing action of fat and carbohydrate calories, second, by limitation of the protein intake, and, lastly by the insurance of complete carbohydrate utilization.

The use of low protein diet therapy in cases of nephritis is largely a question of indications. If rigid dietetic restriction is ever employed, it is of primary importance that the diet be adequate in every detail. In every form of diet therapy primary attention should be paid to the normal human requirements so that in case the treatment fails to produce the expected results, at least no harm will be wrought. Peters (5) has shown that in subjects with nephritis the most exacting control of the nitrogen metabolism is essential to prevent protein starvation and excessive protein consumption. The various high-protein animal feeding experiments are confusing because of the differences of interpretation of the results obtained. The reserve power of such organs as the kidneys is so great that it is probable that some primary injury such as infection must take place before even severe functional overstrain can materially damage them. If this could be demonstrated it would correlate much of the conflicting evidence concerned with the relation of protein to kidney disease of the non-suppurative type. Newburgh and Marsh (6) have shown that certain waste products of normal protein catabolism are capable of producing renal injury. Linder, Lundsgaard, and Van Slyke (7) have stressed the importance of providing nephritic patients with an adequate but not excessive amount of protein. It is therefore essential that the protein requirement of the nephritic patient be considered seriously, first to prevent protein starvation; second to prevent nitrogen retention and renal failure. Since the protein requirement is entirely dependent upon the caloric intake, these two factors must be considered simultaneously in the preparation of the nephritic diet, in order that the patient be supplied with nitrogen and calories to maintain a positive nitrogen balance.

Recent studies in the dietetic management of idiopathic epilepsy by Peterman (8), and by Talbot, Metcalf and Moriarty (9) indicate that a large percentage of epileptic patients can be benefited by the use of ketogenic diets. Here, likewise, is found an application of minimum protein therapy where one must be sure to supply an adequate diet.

CHART 3. DIET CALCULATION TABLE

Fat content of given diet is read directly in grams; protein decided upon and subtracted from C + P column and the remainder is the carbohydrate content of the diet in grams.

CALORIES	RATIOS													
	1:1		1.5:1		2:1		2.5:1		3:1		3.5:1		4:1	
	F	C + P	F	C + P	F	C + P	F	C + P	F	C + P	F	C + P	F	C + P
1,000	77	77	86	57	91	45	94	38	97	32	99	28	100	25
	79	79	88	59	93	47	97	39	99	33	101	29	102	26
	81	81	90	60	96	48	99	40	102	34	104	30	105	26
	83	83	92	61	98	49	101	41	104	35	106	30	107	27
1,100	85	85	94	63	100	50	104	41	106	36	108	31	110	27
	87	87	96	64	102	51	106	42	109	36	111	32	112	28
	88	88	99	66	105	52	108	43	111	37	113	32	115	29
	90	90	101	67	107	53	111	44	114	38	116	33	118	29
1,200	92	92	103	69	109	55	113	45	116	39	118	34	120	30
	94	94	105	70	111	56	116	46	118	40	121	34	122	31
	96	96	107	71	114	57	118	47	121	40	123	35	125	31
	98	98	109	73	116	58	120	48	123	41	126	36	127	32
1,300	100	100	111	74	118	59	123	49	126	42	128	37	130	32
	102	102	114	76	120	60	125	50	129	43	130	37	132	33
	104	104	116	77	122	61	128	51	130	43	133	38	135	34
	106	106	119	78	124	62	130	52	132	44	136	39	138	34
1,400	108	108	120	80	128	64	132	53	135	45	138	40	140	35
	110	110	123	82	130	65	135	54	138	46	141	40	142	36
	112	112	125	83	132	66	137	55	141	47	143	41	144	36
	113	113	126	84	134	67	139	56	143	48	146	42	146	37
1,500	115	115	129	86	136	68	141	57	144	48	148	42	150	38
	117	117	131	87	138	69	144	58	147	49	150	43	152	38
	119	119	134	89	140	70	146	59	150	50	152	44	156	39
	121	121	135	90	144	72	150	60	153	51	155	44	158	39
1,600	123	123	137	91	146	73	151	60	156	52	157	45	160	40
	125	125	140	93	149	74	153	61	158	53	161	46	162	41
	127	127	143	94	150	75	155	62	159	53	163	47	165	41
	129	129	144	96	152	76	158	63	162	54	165	47	168	42
1,700	131	131	146	97	154	77	160	64	165	55	168	48	170	43
	133	133	149	99	156	78	163	65	168	56	170	49	172	43
	135	135	150	100	158	79	165	66	170	57	172	49	176	44
	137	137	152	101	162	81	168	67	171	57	175	50	178	44
1,800	138	138	155	103	164	82	170	68	174	58	177	51	180	45
	140	140	156	104	166	83	173	69	177	59	179	51	182	46
	142	142	158	105	168	84	175	70	179	60	182	52	185	46
	144	144	161	107	170	85	178	71	180	60	185	53	188	47
1,900	146	146	162	108	172	86	180	72	183	61	187	54	190	48
	148	148	165	110	176	88	183	73	186	62	189	54	192	48
	150	150	167	111	178	89	185	74	189	63	192	55	195	49
	152	152	168	112	180	90	188	75	192	64	195	56	197	49

CHART 3—*Concluded*

CALORIES	RATIOS													
	1:1		1.5:1		2:1		2.5:1		3:1		3.5:1		4:1	
	F	P C +	F	P C +	F	P C +	F	P C +	F	P C +	F	P C +	F	P C +
2,000	154	154	171	114	182	91	190	76	195	65	197	56	200	50
	156	156	173	116	184	92	191	76	196	65	200	57	202	51
	158	158	176	117	186	93	193	77	198	66	202	58	205	51
	160	160	178	118	189	94	196	78	201	67	204	58	207	52
2,100	162	162	180	120	191	95	198	79	203	68	207	59	210	52
	163	163	182	121	193	97	200	80	206	69	210	60	212	53
	165	165	184	123	196	98	203	81	208	69	212	61	215	54
	167	167	186	124	198	99	205	82	210	70	214	61	217	54
2,200	169	169	189	126	200	100	207	83	213	71	217	62	220	55
	171	171	191	127	202	101	210	84	215	72	220	63	222	56
	173	173	193	128	204	102	212	85	218	73	222	63	225	56
	175	175	195	130	207	103	214	86	220	73	224	64	227	57
2,300	177	177	197	131	209	105	217	87	222	74	227	65	230	57
	179	179	199	133	212	106	219	88	225	75	229	66	232	58
	181	181	202	134	214	107	222	89	228	76	232	66	235	59
	182	182	204	136	216	108	224	90	230	77	234	67	237	59
2,400	185	185	206	137	218	109	226	91	232	77	236	68	240	60
	186	186	208	139	220	110	229	92	235	78	239	68	242	61
	188	188	210	140	222	111	231	93	237	79	242	69	245	61
	190	190	212	141	225	112	233	94	240	80	244	70	247	62
2,500	192	192	214	143	228	114	236	95	242	81	246	70	250	62

In the calculation of diets high in ketogenic foodstuffs and low in antiketogenic substances the protein content must be kept at a low figure and still must be adequate. The palatability of diets of high ketogenic ratio is directly proportional to the carbohydrate allowance; the successful therapeutic result is directly proportional to the palatability. In diets of a given ketogenic-antiketogenic ratio the cabohydrate content is inversely proportional to the protein allowance and accordingly the successful use of ketogenic diets depends upon a minimum protein content. For convenience in the calculation of ketogenic diets Dr. E. H. Luther and the author have prepared chart 3, A Diet Calculation Table, from which diets of a given ketogenic-antiketogenic ratio and caloric value can easily be estimated. The chart is also useful in calculating diabetic diets. For convenience of calculation the ketogenic-antiketogenic ratio has been abbreviated by, Talbot, Metcalf and Moriarty (9) to:

$$\text{Ratio equals } \frac{\text{gram of fats}}{\text{Combined number of grams of protein and carbohydrate}}$$

This gives a ratio varying only slightly from the Woodyatt ratio (10). The Diet Calculation Table figures are calculated on the following formulas, where R equals the ketogenic-antiketogenic ratio desired and TC equals total calories:

$$\frac{F}{C+P} = R \text{ and, } 9F + 4(C+P) = TC$$

Where F equals grams of fat; C equals grams of carbohydrate, and P equals grams of protein.

The total caloric requirement allowing enough for growth and activity is obtained by adding 50 per cent to the basal caloric requirement

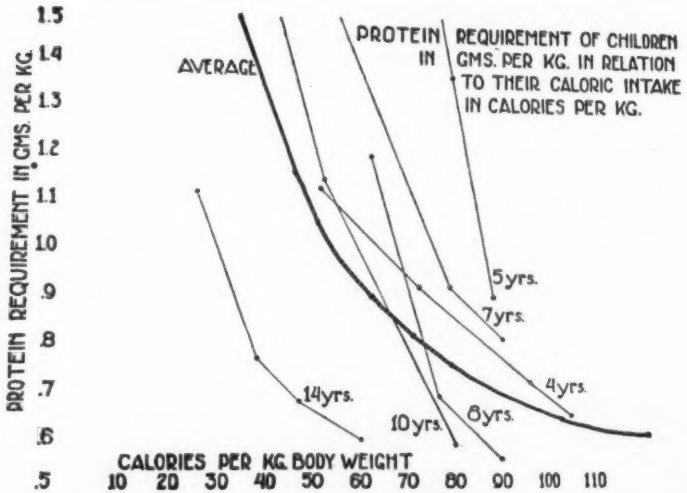

CHART 4. PROTEIN REQUIREMENT OF CHILDREN IN GRAMS PER KILOGRAM OF BODY WEIGHT IN RELATION TO THEIR CALORIC INTAKE IN CALORIES PER KILOGRAM (1)

given in the tables prepared by Talbot (11). The body weight is determined in kilograms and the ratio of ketogenic foodstuffs to antikatogenic foodstuffs decided upon according to the object of the diet. From chart 3, The Diet Calculation Table, a diet of any caloric value between 1000 and 2500 calories and any ratio between 1:1 and 4:1 can be calculated as follows: The fat content of the diet is read directly from the table in grams. The protein requirement is then taken from chart 4 in relation to the calories given per kilogram of body weight. The protein content of the diet decided upon is then subtracted from the

figure read in the column headed C + P and the difference gives the carbohydrate content of the diet in grams.

SUMMARY

1. It is pointed out that diets of lower protein content may be applied to the treatment of certain cases of grave diabetes mellitus, nephritis, idopathic epilepsy and obesity providing the diet is adequate in calories.

2. Tables are presented showing the relationship of hyperglycemia to excessive nitrogen metabolism in diabetes mellitus.

3. A calculation table for convenient calculation of ketogenic diets is presented and its use discussed.

4. A chart showing the average protein requirement of growing children in relation to their calorie intake is reprinted here for use in calculation of diets.

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FOOD REQUIREMENTS IN CHILDREN WITH DIABETES MELLITUS[1]

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Is there an optimum diet for children with diabetes mellitus? A partial answer to this question has been obtained by an analysis of thirty-four cases of juvenile diabetes, twenty-two boys and twelve girls. These cases covered the entire period of growth and have been followed for several years. The attempt to answer this question involved the acceptance of certain standards for comparison of growth and food intake in children. The Height-Weight Index Curve of Bardeen[2] was chosen as a criterion of growth since it probably gives the observer a clearer picture of the relation of height to weight than the usual height and weight charts found in children's clinics. The relation of the proportions of any individual to that of the average healthy child can be most clearly seen by the use of this curve. Holt and Fales standards were chosen as a criterion of measurement of food intake.

By plotting the measurements of these thirty-four children taken before and during the course of the disease upon the Bardeen chart it was found that at the onset of diabetes thirty-one showed excess weight for height or excess height for age or both. There were seven children with average weight for height. Five of these were tall for age and two were of average height for age and in these two cases the onset of diabetes was after acute infection. One child in the series was light for height and in this case there was a family history of diabetes, racial factor and a history of long forced feeding. There seems to be, then, in these children before onset of the disease, at the time of onset, and even after the onset of the disease when upon insulin dosage a definite deviation of the growth impulse from normal and a tendency to overweight.

[1] Abstract of a paper read before the American Dietetic Association, Atlantic City, October 14, 1926. From the Department of Medicine of the College of Physicians and Surgeons of Columbia University, and the Presbyterian Hospital, New York.

[2] Bardeen, C. R. The Height Weight Index of Build in Relation to Volumetric Proportions and Surface Area of the Body During Post Natal Development, Carnegie Institute of Washington, Publication No. 272.

When insulin is not used in therapy the growth process slows down or stops altogether. To have growth in height continue at normal rates even in moderate diabetes is exceptional but does occur. Insulin is the agent which enables the body to utilize carbohydrate and to obtain full benefit from protein and fat. It is not necessary to assume that it has any function as a special stimulant to growth.

A careful search of the pre-diabetic years of the child's life was made to ascertain approximate calorie intake and proportions of carbohydrate, protein and fat. Although great care was observed the data obtained were insufficient for any conclusions other than that there was a food intake definitely above the standard of Holt and Fales in total calories in most of the children.

Since many of these children were under our care for a period before insulin could have been used in therapy we have made note of the percentage deficiency of total calories necessary to control glycosuria. This deficiency varied greatly but was often 60 to 80 per cent of the Holt and Fales standards. The protein ration of these diets averaged two grams per kilo of body weight which is not a large figure considering the emaciated condition of many of the children.

The carefully measured diet during the periods of the disease which showed the best growth progress, as compared with the Bardeen curve, showed the following facts. Growth occurred on diets often 50 per cent deficient in total calories as compared with the standards of Holt and Fales. In almost every case this period of best growth occurred during insulin therapy. The proportion of the total calories yielded by carbohydrate, protein and fat averaged 35, 15 and 50 per cent, respectively, the quotas of calories from carbohydrate and fat being just the reverse of these quotas in the Holt and Fales standards, viz., 50 per cent from carbohydrate and 35 per cent from fat. Although the quota from protein averages about the same as in the Holt and Fales diets the total calories given are so much less that the protein ration is actually much less, averaging for the group about 1.8 grams protein per kilo of body weight. Cases did show "best growth" on rations as low as 0.8 gram protein per kilo of body weight. The caloric deficit noted above does not take into account calories lost through sugar in the urine for the reason that accurate quantitative data is lacking, the children usually being away from the hospital when this occurred.

The vitamins and salts necessary to average growth processes were present in sufficient amounts in all cases due to the amounts of fresh vegetables, fruit, butter, cream, milk, eggs and fresh meats used.

These children were not treated with any unified plan in mind. They were at times under the immediate care of different physicians who instituted the diet therapy they saw fit. The criterion for sufficient total calories was usually an observed increase in growth and weight, this being checked at times by nitrogen balance determinations over a period sufficient to establish the fact that it was positive.

The total calories of these diets although deficient to a large degree as compared with Holt and Fales standards were shown, where basal metabolic rates were observed, to be usually at least basal plus fifty per cent in total calories. In spite of this probably these children are not as active a group as normal healthy children. Some of the boys have been quite active in athletics but aside from these periods of intense activity lead rather quiet lives.

Is there, then, an optimum diet for children with diabetes? We can only say that these children have grown at a rate approximately that of the average healthy child and have tended to assume normal proportions under the following dietitic conditions. The total calories were about two thirds those of the standard requirements of Holt and Fales. The protein ration has averaged much below that of Holt and Fales, being about 1.8 grams per kilo of body weight and a much lower protein ration, 1 gram per kilo, is not inconsistent with satisfactory growth and maintenance of average body weight for height. The proportions of total calories averaged about 35 per cent from carbohydrate, 15 per cent from protein, 50 per cent from fat. In a few cases as high as 55 per cent of total calories from carbohydrate has been fed for years with good effect. Insulin is the agent which enables the body to use food so that growth may take place.

CHEMISTRY OF THE PEANUT: A CLINICAL STUDY[1]

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The success of the treatment of diabetes with insulin depends in a large measure on the accurate balancing of the dose of insulin with the food eaten; this balance can not be established satisfactorily unless the diet can be rigidly controlled. Therefore the suitability of any particular food for use in the diets of diabetic patients depends largely on the completeness and reliability of the information available with regard to its composition.

The Atwater-Bryant Tables of Food Composition, supplied by the United States Department of Agriculture, and other similar tables are based for the most part on partial proximate analyses and do not show, as a rule, what part of the total carbohydrate determined in a given food is digestible. There is urgent need for a fractioning of total carbohydrate contents into utilizable and non-utilizable parts. Such information is available for few foods, and for this reason the recent study of peanut meal reported by Neale is very welcome.

Neale's study shows the nitrogen-free extract of the peanut to be 22.95 per cent; this agrees closely with the average percentage for total carbohydrate as given in the Atwater-Bryant tables. However, a small part only is utilizable by man, only 3.49 per cent of the total peanut being sugar (carbohydrate of alcohol extract as glucose) and 3.19 per cent carbohydrate hydrolized by enzyme as glucose. The balance consists of celluloses, hemicelluloses, waxes, and other substances which the chemist presumes are not available for the human organism. Finally, nearly 5 per cent of pentosan is found, the significance of which in metabolism is as yet unestablished.[3]

[1] Submitted for publication November 11, 1926.

[2] We are indebted to Miss Mildred Black for technical assistance.

[3] M. H. Power, Ph.D., Section of Chemistry has checked this chemical analysis, obtaining results in close agreement with those of Neale's, namely total reducing sugar as glucose after hydrolysis with diastase 5.6, nitrogen 4.93, fat 51.5.

An ingenious method of approaching the question of the assimilability of a given carbohydrate has been employed by Sansum and Woodyatt and by Olmsted. This involves the feeding of a known amount to animals (dogs) rendered completely diabetic by phlorhizin and the determining of the amount of *extra* sugar that appears in the urine. Woodyatt and Sansum fed both pure glucose and corn syrup (Karo), recovering approximately 75 per cent of each as glucose in the urine and thus demonstrating that the method is satisfactory.

A third procedure, that of feeding a given food to the diabetic patient and determining its effect on sugar excretion, has been adopted at various times by clinicians, usually, however, without adequate control and therefore without reliable conclusions being reached. It has seemed to us that this method might be made to yield satisfactory results if certain precautions were observed and sufficient control were maintained.

METHOD OF STUDY

In attempting a dietary investigation such as this the selection of the patient is of the greatest importance. It is well known that radical changes may be made in the diets of patients with mild diabetes without appreciably affecting the intensity of glycosuria, also that spontaneous changes in intensity may occur in mild diabetes which would nullify any conclusions from experiments. Such fluctuations are less common in severe diabetes, and, when suitable injections of insulin are given, the urine will contain a constant amount of sugar for weeks at a time. Under such circumstances every increase in the glucose equivalent of the diet may be measured by the extra number of units of insulin necessary to prevent its causing increased glycosuria. Complicating infectious diseases as well as emotional disturbances must not intervene, but such difficulties can be avoided with care and good fortune.

The honesty of the patient is a matter of extreme importance. It is impossible to subject human beings to such rigid restraint as is practiced with laboratory animals, and their coöperation is, therefore, indispensible. The honesty of diabetics in matters of food has been notoriously lacking, but this bad reputation was gained in times when diets were deficient in calories or diabetes was unsatisfactorily controlled so that the patients were ravenously hungry. The same temptations to steal food no longer exist. Very few infractions of diet rules occur now in the general wards and none, we feel sure, with the patients whom we have selected for special investigations.

The gravest and most common error committed in clinical investigations on metabolism is failure to insure complete collection of the urine for each twenty-four hours. In tests of this kind, it being desirable to reduce sources of error to the minimum, either the nurse or the patient should be given entire control of collecting urine. On account of the impossibility of having one nurse always present, it will usually be found desirable to entrust this to the patient.

Before the unknown food is given there should be a long preliminary period on a diet of known composition during which small and constant amounts of sugar should be excreted. The reason for this is the well-known fact that, when the urine is completely sugar-free, a relatively large amount of additional food may be given without sugar being excreted (the tolerance stretching under the tension, so to speak), whereas, once the tolerance is actually broken, further additions of carbohydrates, even small amounts, are immediately reflected by the excretion of more sugar.

In all diet experiments the foods served should have a constant composition and all portions should be accurately weighed. At the same time the meals cannot be so limited in variety as to be unattractive or unpalatable. Finally, the intervals between changes in the composition of the diet must extend over several days, since daily fluctuations in excretion of nitrogen and sugar can never be entirely eliminated and the average results of several consecutive days of observation are alone dependable.

These conditions have been observed in the present study. The patient, a young woman, had first manifested diabetes several years previously and was extremely emaciated and suffering from severe diabetes when she was brought to us and treated with insulin in 1922. Since 1922 she has been maintained in a good state of health by careful dieting and injections of from 50 to 60 units of insulin a day. She was employed as a technician in our laboratory and for nine months had resided in the hospital. She is thoroughly familiar with all the requirements of diet experimentation, especially with the importance of accurate collection of urine. She has never been known to take food not allowed in her regular diet.

The basis of the diets served in these experiments consisted of the following articles: 200 grams of lettuce, tomato and celery, previously washed, drained and kept moist, the carbohydrate of this salad mixture being estimated at 3 per cent; white bread, the composition of which is

TABLE 1

Comparative effect of soy-bean, peanut and lean beef on glycosuria

(Age of patient, 23; weight, 50.5 kgm.; height 5 feet 4¾ inches)

DATE (1926)	BODY WEIGHT	BLOOD SUGAR, FASTING	URINE		INSULIN				FOOD	DIET			
			Nitrogen	Sugar	Total	A.M.	M.	P.M.		Amount	C.	P.	F.
	kgm.	*mgm.*	*grams.*	*grams.*	*units*	*units*	*units*	*units*		*grams*	*grams*	*grams*	*grams*
May 18	50.5	181	6.68	0.93	50	20	20	10	Lettuce, Tomato, Celery	200	6	2	0
May 19	50.5	228	7.65	0.94	50	20	20	10					
May 20	50.8	188	7.50	0.84	40	20	10	10					
May 21	50.5	188	7.93	0.93	40	20	10	10	White bread	45	24	4	1
May 22	50.5	206	7.56	0.75	40	20	10	10	Butter	60			51
May 23	50.8		7.97	10.58	30	10	10	10	Cream, 20 per cent	300	15	9	60
May 24	50.9	329	8.55	22.86	30	10	10	10	Mayonnaise	60			51
May 25	50.9	339	7.28	15.37	30	10	10	10	Soy meal	163	13	62	24
May 26	51.5		7.88	2.64	40	15	15	10	Total		58	77	187
May 27	51.3	259	9.42	2.75	35	15	10	10	Calories			2,223	
May 28	50.9	259	8.54	4.32	35	15	10	10	Glucose equivalent		121		
May 29		275	7.74	8.08	35	15	10	10					
May 30	50.9	323	9.44	10.08	35	15	10	10					
May 31	50.8	338	10.80	20.60	35	15	10	10					
June 1		398		17.33	45	15	20	10					
June 2	50.8	252	7.66	5.87	40	15	15	10					
June 3		298	9.08	5.95	40	15	15	10					
June 4	50.8	290	10.02	9.45	40	15	15	10					
June 5		267	8.50	10.05	40	15	15	10					
June 6	50.8		11.55	16.39	40	15	15	10					
Daily average (May 23 to June 6)	302		8.89	10.82	36.7				**Soy-bean protein, 62 grams**				

June 7	51.0	268	10.10	14.31	50	15	25	10	Lettuce, Tomato, Celery	200	6	2	0
June 8	51.0	300	10.63	12.26	40	15	15	10					
June 9		231	10.07	8.17	40	15	15	10					
June 10		231	10.53	2.97	40	15	15	10	White bread	45	24	4	1
June 11		231	9.78	4.84	40	15	15	10	Butter	30			26
June 12	50.8	259	8.58	4.51	40	15	15	10	Cream, 20 per cent	300	15	9	60
June 13	50.8	266	9.90	9.75	40	15	15	10	Peanuts	200	12	62	100
June 14	50.9		10.17	14.85	40	15	15	10	Total		57	77	187
June 15	50.9		8.34	9.05	45	15	25	5	Calories			2,219	
June 16	50.8		9.25	14.06	40	15	15	10	Glucose equivalent		120		
June 17	50.8	274	9.24	5.88	40	15	15	10					
June 18	50.8		9.41	8.70	40	15	15	10					
June 19	50.8		8.25	8.00	40	15	15	10					
June 20	50.8		10.22	8.12	40	15	15	10					
Daily average		258	9.61	8.96	41				**Peanut protein, 62 grams**				
June 21	51.5	290	11.00	17.70	40	15	15	10	Lettuce, Tomato, Celery	200	6	2	0
June 22	51.0		10.23	11.55	45	15	25	5					
June 23	50.8		10.46	9.84	40	15	15	10					
June 24	50.7	249	10.30	2.03	40	15	15	10	White bread	70	37	6	1
June 25	50.8		11.54	6.66	40	15	15	10	Butter	45			38
June 26		265	10.45	11.88	40	15	15	10	Cream, 20 per cent	300	15	9	60
									Mayonnaise	60			51
									Lean Beef	240		60	36
									Total		58	77	186
									Calories			2,214	
									Glucose equivalent		121		
Daily average		268	10.66	9.94	40.8				**Lean beef protein, 60 grams**				

TABLE 1—*Concluded*

DATE (1926)	BODY WEIGHT	BLOOD SUGAR, FASTING	URINE		INSULIN				FOOD	DIET.			
			Nitrogen	Sugar	Total	A.M.	M.	P.M.		Amount	C.	P.	F.
	kgm.	*mgm.*	*grams*	*grams.*	*units*	*units*	*units*	*units*		*grams*	*grams*	*grams*	*grams*
Second period of diet with 200 grams of peanuts													
July 20	52.2	109	7.98	0.60	40	15	15	10	Lettuce				
July 21	52.2	168	7.85	1.04	40	15	15	10	Tomato	200	6	2	0
July 22	51.3		7.92	1.22	40	15	15	10	Celery				
July 23	51.3		8.00	1.16	40	15	15	10	White bread	45	24	4	1
July 24	51.3		9.14	3.52	40	15	15	10	Butter	30			26
July 25	50.8	232	10.70	5.42	40	15	15	10	Cream, 20 per cent	300	15	9	60
July 26	51.2	265	11.66	12.40	40	15	15	10	Peanuts	200	12	62	100
July 27	51.2		9.57	11.31	40	15	15	10	Total		57	77	187
July 28	51.2		11.63	11.05	40	15	15	10	Calories			2,219	
July 29	50.9	273	12.07	14.72	40	15	15	10	Glucose equivalent		120		
July 30	51.2	331	11.34	11.21	40	15	15	10					
Daily average (July 25–30)		275	11.16	11.02	40				**Peanut protein, 62 grams**				

fairly constant; butter and cream, of determined composition, and a standard mayonnaise dressing. This was fed during all periods. To it was added soy-bean meal in the first experimental period, ground peanuts in the second period, and lean beef in the third. The soy-bean meal was a commercial product, soya manna. This was weighed dry and cooked in a double boiler with salt and sufficient water to form a mush. The peanuts were freshly roasted and ground to a meal in a hand-mill. The required portion was weighed dry, and cooked with water and salt until soft enough to be put through a fine sieve.

All of these diets were so arranged that the calories, grams of carbohydrate, grams of protein, and grams of fat would remain the same, and so that the same proportion of the total protein of each would be supplied by soy-bean, peanut and lean beef, respectively. The duration of the soy-bean period was twenty days. Only the last fifteen

TABLE 2

Average effects of soy-bean, peanut and lean beef on glycosuria

PERIOD	NUMBER OF DAYS (AVERAGE)	AVERAGE DAILY URINE NITROGEN	AVERAGE DAILY URINE SUGAR	AVERAGE DAILY INSULIN DOSAGE	AVERAGE FASTING BLOOD SUGAR
		grams	*grams*	*units*	*mgm.*
Soy-bean	15	8.89	10.82	36.7	302
Peanut	14	9.61	8.96	41.0	258
Lean beef	6	10.66	9.94	40.8	268
Peanut (second test)	6	11.16	11.02	40.0	275

of these are significant, because until the fifth day the urine was sugar-free. The duration of the peanut period, which followed immediately after the soy-bean period, was fourteen days and that of the following lean-beef period was six days. At a later date the peanut diet was repeated for a period of eleven days.

The daily excretion of nitrogen, being fairly uniform, served as a control of the constancy of the diet and the completeness of the collection of urine. Creatinin was not determined. The fluctuation in sugar excretion was controlled by the insulin dosage. The stools were not analyzed.

RESULTS AND CONCLUSIONS

The results are shown in table 1. The patient had been on a lower diet prior to May 18 when the experiments began, and the urine had contained no sugar for some time. It was, therefore, not surprising

that several days elapsed before the experimental diet provoked glycosuria. Qualitative reduction tests gave negative results until May 23. Consideration of the length of this period is, therefore, limited to the days May 23 to June 6 inclusive. Again in the second test of the peanut diet, started July 20 (table 1), the urine had been sugar-free before and continued to give negative reactions with the qualitative tests for the first four days of the experimental period. The data from then on are alone significant.

Conclusions are based on the average figures as summarized in table 2. It is clear from them that the patient's tolerance for the peanut diet was practically the same as that for the other diets and, since the available carbohydrate of the peanut was assumed at the outset to be 6 per cent, the experiments support the validity of Neale's conclusion that only a small fraction of the peanut carbohydrate is absorbed. In passing it is worthy of notice that the shift from diets in which 62 grams of protein was of vegetable origin (soy-bean, peanut) to one in which the same amount of protein came from meat, had no appreciable effect on the intensity of glycosuria.

On the basis of this clinical study we can, therefore, endorse Neale's conclusion and for clinical purposes accept her figure 6.68 per cent for the absorbable carbohydrate of the peanut. Moreover, since the fat content of the peanut is high (50 per cent) and the protein not excessive (31 per cent), we agree with Neale in regarding this food as a useful ingredient of diets for patients with diabetes.

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PREPARATION OF CALVES' LIVER FOR PERNICIOUS ANEMIA DIETS

THELMA TUBBS, B.S., AND ELIZABETH BELLINGER, B.S.

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Recently there has been a great demand for the preparation of calves' liver in a palatable form which can be fed in quantity to patients, because of the interest in the special diet advocated by Minot and Murphy in the treatment of patients with pernicious anemia.

In preparing recipes, we have kept in mind the fact that the patients will have to remain on the diet at home after their discharge from the hospital, and the following recipes, which have been used at Peter Bent Brigham Hospital, can be prepared easily either in the hospital or home kitchen.

Liver Juice: Score the raw liver and sear slightly in a pan, for less than a minute. Place the seared liver in a square made of gauze (several folds) and squeeze out the juice. About 150 cc. of juice from 2 lbs. of liver. *Serve cold.* Orange juice may be taken after it.

Broiled Liver: Dash liver in hot water, remove the skin, and broil until done, or pan broil in mineral oil. Five minutes are generally allowed for cooking.

Scraped or Sieved Liver: Dash liver in hot water and remove the skin. Broil the liver 5 to 10 minutes (until cooked through) and scrape through sieve, or press through potato ricer.

Liver Stuffed in Green Peppers or Tomatoes: Stuff sieved or finely chopped liver (cooked) which has been moistened with tomato juice or broth, in the tomato or green pepper and bake. Onion may be added to the chopped liver for flavor. One pepper or tomato will hold 60 grams of liver.

Liver Soup: Add 90 grams of scraped or *sieved liver* to 200 cc. of clear *tomato* or chicken broth with fat removed. Season with onion if desired.

Liver Soup (Creamed): 120 grams chopped liver, 220 cc. milk, 4 tsp. flour, 10 grams butter. Make white sauce and add liver.

A CHAPTER IN THE HISTORY OF DIETETICS[1]

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Thirty-five years ago I had never heard the word "dietitian" and it is not in my Webster's Academic Dictionary published in 1895. So you see our profession is of very recent growth.

One day in the summer of 1891, I picked up an old magazine by chance (I don't even know the name of it), and became interested in an article on the crying need of trained women in hospitals to teach nurses to prepare food for the sick. At the time I had a strong desire to work in a hospital, and I was too old to take up nursing, so this idea appealed to me. Shortly after this I saw an advertisement of Mrs. Rorer's Normal Class in cooking about to begin in Philadelphia on October first, 1891.

Knowing that Mrs. Rorer was celebrated for her good cooking as well as for her teaching, I wrote to her at once, and asked to be allowed to enroll myself in her class, hoping a course with her might lead the way to work in a hospital. She replied, accepting me as a pupil, but she warned me that she had never known anyone to succeed who tried a new thing at my age.

So I started on my Normal Course—of theory there was but little—there *was* little theory at that time, and we had not made the acquaintance of calories, vitamins, etc. We learned of food values and of proteins, carbohydrates, etc. We had ten lectures on chemistry and several on physiology and hygiene, and we were taught that diabetic patients must avoid sugars and starches and nephritic patients must avoid proteins. We were taught to cook, and to cook well.

We had ten lessons on cooking for the sick, and emphasis was laid on attractiveness of trays and color schemes. Then we were examined and received our diplomas, and my classmates started out to lecture and to teach.

With my hospital still in mind, as soon as I received my diploma I started towards that goal. There were few ready-made recipes for the sick, so I made my own or adapted others, and I spent a year studying

[1]Read at the luncheon of the American Dietetic Association, Atlantic City, October 14, 1926.

chemistry and digestion, testing my recipes and teaching and lecturing when and where I could.

At this time, 1892, Drexel Institute in Philadelphia was beginning a course of lessons for nurses and the University Hospital and Blockley were sending their nurses there. The Pennsylvania Hospital sent a class to me that same year and I think some one must have tried to teach their nurses the spring before, as Miss Collier, the Superintendent of Nurses, would only send her nurses to me on condition that I would not teach them to bond a bird.

The housekeeper of the Women's Hospital on North College Avenue had started a diet kitchen to teach their nurses cookery for the patients, and had worked out her own theory from ordinary cook books and had compiled her own recipes, but she had had no training herself, although she was doing excellent work.

Johns Hopkins had started a diet kitchen under Miss Boland, who was a graduate of a cooking school in Boston, I think, and who was publishing a book from which I got considerable help when I began my real work. In both of these hospitals, the nurses were taught cooking for the sick, but the patients were not fed by them. The quantities for each recipe were small and generally the nurses themselves ate the finished products.

In the spring of 1893, the managers of the Presbyterian Hospital of Philadelphia decided to start a diet kitchen. The superintendent of nurses, Miss Lucy Walker, insisted from the beginning that not only should her nurses be taught to cook in this kitchen, but that the private wards should be fed from it by the nurses, and all the special diets, broths, etc., should be prepared there.

As I was the only woman in Philadelphia who had any qualifications for such work, Mrs. Rorer sent me to see Miss Walker, and three days afterwards I was engaged as "Superintendent of diet." And in spite of discouragement from Johns Hopkins and various wiseacres, who said that teaching the nurses and at the same time feeding the patients could not be done, our diet kitchen started May first, 1893, and after the first three awful days, its success was assured; and I venture to say that no diet kitchen could now be thought of where the two branches of work did not go hand in hand.

It is interesting to note that President Seeley (?) of Smith College, whom I met several times in Maine, was very much interested in my plans to teach dietetics in a hospital, and in 1892 and 1893, he urged me to work out a scheme for introducing a course of what would now be called Household Economics, in Smith College.

CHANGES IN THE GERMAN DIET[1]

R. R. KUCZYNSKI

Unlike the United States, where there is a big surplus of agricultural products, Germany has had for at least fifty years an excess of imports over exports both for food and for fodder. The share which we owed foreign countries was steadily increasing before the war, but we could easily endure this increasing dependence upon foreign countries, since our exports of manufactured goods and our investments abroad furnished us the means with which to buy the lacking agricultural products. One may even be surprised that we had not to import more food and fodder than we actually did, since our cultivated area, which covers about one-half of our total territory as compared with one-fifth in the United States, remained about stable during the last forty years before the war, while at the same time our population increased by 60 per cent. The explanation is to be found in the fact that as a consequence of technical progress the yield per acre was steadily increasing so that for instance our cereal crops in the last years before the war were about 50 per cent higher than in the seventies.

There has been a good deal of discussion about how much of our food we actually owed foreign countries. This question cannot indeed be answered off hand. Our average daily per capita consumption in the last five years before the war had a nutritive value of 3,200 calories. Of that we owed 300 calories to the excess of food imports over food exports. But this does by no means tell the whole story. A large part of the pigs we raised in our country were fed with imported barley and corn, and a still larger part of our milk was derived from oil cakes and bran which we imported either directly or which we secured from imported oil seeds and cereals. If we assume that $2\frac{3}{4}$ million tons of imported barley and corn were annually converted into pork and that six pounds of cereals were needed to produce one pound of pork and if we further assume that foreign fodder containing 600,000 tons of protein were annually converted into milk and that about 11 ounces of protein in the fodder will produce one gallon of milk, we find that 300 more

[1]Read at the Annual Banquet of the American Dietetic Association, Atlantic City, October 13, 1926.

calories of our daily per capita consumption were due to the imports of foreign fodder. The total share which we owed foreign countries amounted thus to 600 calories or 19 per cent of our entire consumption of 3,200 calories.

This pre-war consumption of 3,200 calories a day was rather ample. If we assume that a man needs 3,000 calories and women and children proportionately less, we come to the conclusion that the average physiological minimum need of the total German population was 2,300 calories. The actual consumption was then 900 calories higher than was necessary from a physiological standpoint. But there is a certain amount of unavoidable waste which the economist must take into consideration. It is out of the question to make use of all residues left in preparing the meals and it is impossible to protect every bit of food in the household against decay. It is very hard to estimate those unavoidable losses. I would have valued them before the war at at least ten per cent, but experiences in war time make me think that perhaps not more than 8 per cent are inevitably lost. The average per capita minimum need of the German population before the war would then have amounted to 2,500 calories. Since 3,200 calories were actually consumed, 700 calories or 22 per cent were unnecessarily wasted. This was done through carelessness in the household, through bad mastication, through actual overfeeding.

In the course of the war, imports shrunk to a minimum and since on account of the lack of farm hands and of foreign fertilizers domestic production likewise decreased, we had at last even much less than the 2,600 calories per capita which domestic production furnished us before the war. This scarcity of food was felt the more as all attempts to provide an equal distribution had only a partial success, the rural districts always keeping ahead of the towns and cities. Nor did conditions change much when the military blockade stopped, since inflation created a new blockade which at times was almost as efficient as the old one. It was not until the first months of 1924 that a marked improvement took place. According to an investigation which I have just completed for the quinquennial period from 1920 to 1924, our total daily per capita consumption averaged only 2,700 calories as compared with 3,200 calories before the war. The decrease was not very strong for vegetable food, the number of calories dropping here only from 2,160 to 2,030 calories, and if we exclude alcoholic beverages, from 200 to 1,970. But the animal calories sank from 1,040 to 670, two thirds of

this decrease being due to the lack of Russian barley with which to feed our pigs and of oil cakes and bran with which to produce milk.

The German diet thus underwent a considerable change. The total consumption, measured by calories, decreased by 16 per cent, the share of the animal food dropped from one-third to one-fourth. Conditions have somewhat improved in the last two years. Domestic production has increased as well as imports. But we are still far from our prewar status. We have on the whole perhaps sufficient food. Our rural population is probably as well fed as before the war, if not better. But our industrial workers, who after all have always consumed much less meat and dairy products than the American worker, have now a far too poor diet in this respect, and the improvement of their standard of living is one of our greatest concerns.

STANDARDIZATION OF COURSES FOR STUDENT DIETITIANS IN HOSPITALS

As Proposed by The Section on Education of The American Dietetic Association

GRADE "A"

I. General Organization of Hospital.
  A. Recognition.
    1. A. H. A. Membership of the hospital.
    2. A. D. A. Membership of all dietitians in constant employ.
    3. Accredited Nurses Training School.
  B. Capacity.
    1. Beds for 200 or more patients requiring
      a. General hospital treatments.
    2. 25 or more private rooms.
  C. Dietary Department.
    1. Organization of Personnel.
      a. Chief dietitian responsible to Superintendent of Hospital for administrative supervision of the dietary department.
      b. Two or more dietitians in constant employ if hospital has bed capacity of 250 or less patients.
      c. Three or more dietitians in constant employ if hospital has bed capacity of more than 250 patients.
    2. Organization of Service—Administrative supervision of dietitians to control.
      a. Dietary service for general personnel of hospital.
      b. General diets for patients.
      c. Special or corrective diets of varied types for a daily average of twenty or more patients.

Note: Special dispensation in meeting above requirements may be granted in exceptional cases by the Executive Committee of the American Dietetic Association.

II. Entrance Requirements for Course for Student Dietitians.
  A. Age—at least 21 years.

B. Education—Minimum: Bachelor's Degree with a major in Foods and Nutrition from a college or university of recognized rank.

III. General Organization of Course for Student Dietitians.
  A. Provision for Constant Enrollment of at Least Two Students.
  B. Full Maintenance Provided for Students (board, room and laundry).
  C. Length of Course—six months or longer.
  D. Required Hours for Students.
    1. Duty—at least 42 weekly.
    2. Study, conferences, etc., at least 5 weekly.
  E. Certificate—Offered upon satisfactory completion of course.

IV. Content of Course for Student Dietitians.
  A. General Summary.
    1. Administrative practice and general organization of kitchens.
    2. Diet therapy or special diet practice.
    3. Theory of teaching dietetics to pupil nurses.
    4. Study conferences, etc.
    5. Optional duties.
  B. Specific Outline—Duties of Student Dietitians in
    1. Administrative practice and general organization of kitchens.
      a. Time spent—Two months or longer
      b. Practical work to consist of:
        (1) Observation or practice in assuming duties in all divisions of the dietary department including
          Main Kitchen
          Dining Rooms
          Office
          Store Room
          Distributing and Serving Departments for ward and private room trays
        (2) Planning and adapting a series of at least two weeks' menus to particular hospital.
        (3) Actual performance of routine office duties.
        (4) Computation and recording content of food intake for one day of each group of normal diets fed by the department. This problem to be repeated at least twice.

(5) Computation and recording of cost of one day's food supply for the hospital. This problem to be repeated at least twice.

C. Theoretical Work to Consist of Conferences with Those in Supervisory Charge Regarding

*(1) Organization of personnel of department
(2) Operation and control of equipment
*(3) Planning layouts and selecting equipment
(4) Marketing procedure in particular hospital
(5) Store-room management in particular hospital
*(6) Reference books and publications and commercial concerns of significance in dietary administration.

Note: Permanent record to be made by student in starred conferences.

2. Diet Therapy or Special Diet Practice.
   a. Time spent—Two months or longer.
   b. Practical work to consist of
      (1) Actual experience in assuming entire control of routine special diets (including infant and child feeding) which control will consist of
         Planning
         Calculating
         Preparing
         Distributing
         Serving
      (2) Interpreting charts and laboratory records
      (3) Interpreting doctors' orders
      (4) Interviewing and instructing patients on special diet regime
   c. Theory of diet therapy to consist of
      (1) Conferences with specialists on history, theory and content of all special diets used.
      (2) Permanent bibliography of reference books and periodicals of value in Dietary Department.
3. Theory of teaching Dietetics to pupil nurses
   a. A permanent record required of each student of the summary of outline and methods in use in particular hospital for teaching Dietetics to pupil nurses.
   b. A permanent record required of each student of source of supply of approved standard curriculums for teaching Dietetics to pupil nurses.

4. Study, Conferences, etc.—to consist of
   a. Satisfactory completion and recording of at least one assigned problem.
   b. Permanent record of organization of dietary department of one other hospital as observed through personal survey of students.
   c. Class or seminar work of at least one hour weekly consisting of either;
      (1) Conferences with supervising dietitians or doctors.
      (2) Reports on special assignments.
      (3) Round table discussions.

Note: Conferences required under separate headings may be included in this class work.

5. Optional Duties—which may be included in remainder of time allotted to the Course or which may be substituted for the essential contents of Course, as outlined, upon approval of the Executive Committee of the American Dietetic Association.
   a. Social Service assignments.
   b. Medical Clinic assignments.
   c. Metabolic Ward or Laboratory Assignments.
   d. Field trips of value to dietary profession.
   e. Housekeeping and Laundry.
   f. Affiliations of any nature which will make the content of the Course more complete.

GRADE "B"

I. General Organization of Hospital.
   A. Recognition
      1. A. H. A. Membership of the hospital.
      2. A. D. A. Membership of all qualified dietitians.
      3. Accredited Nurses Training School.
   B. Capacity
      1. Beds for 100 or more patients.
   C. Dietary Department
      1. Supervised by Dietitian who is directly responsible to Superintendent of hospital.
      2. Organized to include feeding of normal and corrective, or special, diets of hospital.

Note: Special dispensation in meeting above requirements may be granted in exceptional cases by the Executive Committee of the American Dietetic Association.

II. Entrance Requirements for Course for Student Dietitians.
  A. Age—at least 21 years.
  B. Education—Minimum: Bachelor's Degree with a major in Foods and Nutrition from a college or university of recognized rank.

III. General Organization of Course for Student Dietitians.
  A. Length of Course—at least four months.
  B. Weekly average hours on duty—minimum 42.

IV. Content of Course for Student Dietitians
  A. General Summary
    1. Administrative Practice and General Organization of Kitchens.
    2. Diet Therapy or Special Diet Practice.
    3. Theory of Teaching Dietetics to Pupil Nurses.
    4. Optional Duties.
  B. Specific Outline—Duties of student dietitian in
    1. Administrative Practice and General Organization of Kitchens.
      a. Time spent—one month or longer.
      b. Practical work to consist of
        (1) Observation or practice in assuming duties in all divisions of the department.
        (2) Planning and adapting a series of at least two weeks' menus to particular hospital.
        (3) Actual performance of routine office duties.
      c. Theoretical work to consist of Conferences with those in supervisory charge regarding
        *(1) Organization of personnel of department.
        (2) Operation and control of equipment.
        *(3) Various types of kitchen equipment.
        (4) Marketing procedure in particular hospital.
        (5) Storeroom Management in particular hospital.
        *(6) Reference books, and publications and commercial concerns of significance in dietary administration.

Note: Permanent record to be made by student in starred conferences.

    2. Diet Therapy or Special Diet Practice.
      a. Time spent—1 month or longer.

b. Practical work to consist of
   (1) Actual experience in assuming control of routine special diets, which control will consist of
      Planning
      Calculating
      Preparing
      Distributing
      Serving
   (2) Interpreting doctor's orders.
   (3) Interviewing and instructing patients on special diet regime.

c. Theory of Diet Therapy to consist of
   (1) Permanent record of content of all special diets used.
   (2) Permanent bibliography of reference books and periodicals of value in dietary department.

3. Theory of teaching dietetics to pupil nurses.
   a. Permanent record of source of supply of approved standard curriculums for teaching dietetics to pupil nurses.
4. Optional Duties—which may be included in remainder of time allotted to the course, as outlined, upon approval of the Executive Committee of the American Dietetic Association.
   a. Affiliations of any nature which will make the content of the Course more complete.
   b. Field trips of value to dietary profession.
   c. Housekeeping and Laundry.

Dr. Ruth Wheeler moved that the outline as suggested be adopted tentatively for the coming year, and a report on the results be made at the 1927 meeting. Miss Quindara Oliver seconded this motion. The Association voted to accept the motion.

CURRENT LITERATURE

American Journal of Diseases of Children:

July, 1926.

P. 29. The metabolism of salts in nephritis. Gladys L. Boyd, B.Sc., M.D. (Tor.) Angelia M. Courtney, B.A., and Ida MacLochlan, B.A.

P. 63. Metabolism of undernourished children. I. Calcium and phosphorus. Chi Che Wang, Ph.D., Margaret Frank, B.S., Bertha B. Hays, M.S., and Ruth Kern, M.S.

August, 1926.

P. Pellagra report of a case in a child aged seventeen months. Edward Lewis, M.D.

September, 1926.

P. 350. Metabolism of undernourished children. II. Basal metabolism. Chi Che Wang, Ph.D., Ruth Kern, M.S., Margaret Frank, B.S., and Bertha B. Hays, M.S.

P. 360. Metabolism of undernourished children. III. Urinary nitrogen with special reference to creatinine. (As above.)

American Journal of Physiology:

July, 1926.

P. 389. Studies in the physiology of vitamines. IV. Vitamin B in relation to gastric motility. George R. Cowgill, Harry J. Deuel, Jr., Norman Plummer and Frederick G. Messer.

P. 491. The effects of caffeine and theobromine upon the formation and excretion of uric acid. Guy W. Clark and Alfred A. de Lorimier.

September, 1926.

P. 11. Biological food tests. IX. Vitamin A in three varieties of cheese. Agnes Fay Morgan.

P. 127. Studies on metabolism. IV. The basal metabolic rate of normal dogs. Margarete M. Kunde and Arthur H. Steinhaus.

American Journal of Public Health:

July, 1926.

P. 694. Sunlight and health. Frederick F. Tisdall, M.D.

August, 1926.

P. Standard methods milk analysis bacteriological methods.

September, 1926.

P. 873. Ice cream as cause of epidemics. Frederick W. Fabian.

Archives of Diseases in Childhood (British):

June, 1926.

P. 141. Nephritis in childhood. Norman B. Capon, M.D.

August, 1926.

P. 232. A study of gastric acidity in infants. Lucy Wills, M.B., B.S., and Donald Paterson, M.B.

P. 245. Calcium absorption in relation to gastric acidity. (A study of rickets.) Lucy Wills, M.B., Phyllis Sanderson, B.Sc., and Donald Paterson, M.B.

Archives of Internal Medicine:

July, 1926.

P. The rôle of insulin in protein metabolism. N. W. Janney, M.D., and I. Shapiro, M.D.

August, 1926.

P. 158. Hypertension and constipation. Walter C. Alvarez, M.D., R. L. McColla, M.D., and A. Zimmermann, Dr. E. S. Sc.

Archives of Pediatrics:

July, 1926.

P. 478. General principles governing my infant feeding problem. Charles G. Kerley, M.D.

August, 1926.

P. 493. Concentrated feeding in children above the age of infancy. Henry Heiman, M.D., and Philip Cohen, M.D.

P. 533. A case of coeliac disease with "banana treatment." Henry Eugene Irish, M.D.

Canadian Medical Association Journal:

July, 1926.

P. 759. The practical application of our present knowledge of calcium metabolism. A. T. Cameron, D.Sc.

August, 1926.

P. 923. Goitre in children. A study of treatment. H. D. Kitchin, M.D.

September, 1926.

P. 1021. An address on diabetes. I. M. Rabinowritch.

P. 1086. Non-relation of malnutrition in school children to infection. H. W. Hill, M.B., M.D., and Elizabeth Breeze, R.N.

Hospital Management:

July, 1926.

P. 39. How Jefferson Hospital handles food service. I. Adams.

P. 45. How many employes to handle food in a 250-bed hospital.

P. 80. Nurses training in diet. Catherine Fancher.

August, 1926.

P. 50. A study of results of gas cooking. Katherine E. Enders.

P. 80. United States milk standards.

September, 1926.

P. 35. Dietitians have administrative, as well as technical papers.

P. 80. Work of large dietary department.

P. 82. Disposal of garbage.

Journal American Medical Association:

July 3, 1926.

P. 25. The effects of an exclusive, long-continued meat diet. Clarence W. Lieb., M.D.

July 10, 1926.

P. 86. Cancer, vitamin imbalance, and roentgen-ray activity. Montrose T. Burrows, M.D., Louis H. Jorstad, M.D., and Edwin C. Ernst, M.D.

P. 103. Vitamines in human milk.

July 17, 1926.

P. 137. Infant feeding. Clifford G. Grulee, M.D.

July 24, 1926.

P. 248. The curability of diabetes.

July 31, 1926.

P. 305. Postencephalitic obesity. T. G. Walsh, M.D.

August 7, 1926.

P. 388. Hyperglycemia without glycosuria in one thousand diabetic patients. C. T. Stone, M.D.

P. 391. Effect of injections of dextrose and of insulin and dextrose on blood sugar. William Thalhimer, M.D., Forrester Raine, M.D., Margaret C. Perry, A.M., and Jane Buttler, A.B.

P. 397. Retention of vegetable material in the stomach. Lloyd Bryan, M.D.

August 14, 1926.

P. 470. Treatment of pernicious anemia by a special diet. G. R. Minot, M.D. and W. P. Murphy.

P. 476. Relation of anemia, primary and secondary to vitamin A deficiency. Karl K. Koessler, M.D., Siegfried Maurer, M.D., and Rosemary Laughlin, M.S.

September 11, 1926.

P. 833. Viability of B. acidophilus and B. bulgaricus in human intestine. W. L. Kulp, Ph.D.

September 18, 1926.

P. 901. Avitaminosis in course of diabetes. M. G. Wohl.

Journal of Biological Chemistry:

July, 1926.

P. 29. Dietary requirements for reproduction. V. The rôle of various vegetable and fruit oils in fertility and lactation. Barnett Sure. Dietary requirements for reproduction. VI. Types of sterility produced on a skimmed milk powder reproduction deficient diet. Barnett Sure. Dietary requirements for reproduction. VII. The existence of a lactation promoting factor in the unsaponifiable matter from wheat oil. Barnett Sure.

P. 85. Proteins of wheat bran. III. The nutritive properties of proteins of wheat bran. Joseph C. Murphy and D. Breese Jones.

August, 1926.

P. 277. Vitamin studies. XIV. Influence of ultra-violet light on the anti-rachitic properties of purified rations used in study of vitamin. A. R. Adams Dutcher and John Henry Kruger.

P. 403. A differentiation between the water soluble growth promoting and anti-neuritic substances. Sigfred M. Hauge and Carey W. Carrick.

P. 449. The effect of excretion of acids and bases upon the development of acidosis in experimental diabetes. Byron M. Hendrix, Marion Fay, Dea B. Calvin, and Meyer Bodansky.

P. 511. Preservation of vitamin C in dried orange juice. Gertrude J. Humphrey.

P. 589. Metabolism of sulfur. XI. Can taurine replace cystine in the diet of the young white rat? George T. Lewis and Howard B. Lewis.

P. 599. The availability of taurine as a supplementing agent in diets deficient in cystine. William C. Rose and Bernice T. Huddlestun.

P. 661. The relation of the rate of growth to diet. Thomas B. Osborne and Lafayette B. Mendel.

Journal of Metabolic Research:

April, May, June, 1924.

P. 195. Metabolism of vitamin B as one of the food constituents; its excretion in the pigeon. Juan Antonio Collaza and Casimir Funk.

P. 251. Studies of vitamin potency of cod liver oils. Arthur D. Holmes.

The Lancet (British):

September 4, 1926.

P. 495. British Medical Association Annual Meeting at Nottingham. Section of Public Health.

P. 507. Lead poisoning from food.

Modern Hospital:

July, 1926.

P. 122. Planning proper diets for employees. Marion Sprague Gilmore.

August, 1926.

P. 116. Recent developments in mineral metabolism. Agnes Fay Morgan.

P. 124. Occurrence and distribution of diabetes in United States.

September, 1926.

P. 118. Soup the standard diet in all countries. Rhoda A. Tyler.

P. 126. Buying glassware.

ASSOCIATION NEWS

The Massachusetts Dietetic Association opened the program of the year with Dr. William Murphy of Peter Bent Brigham Hospital, as speaker. The subject was, "Newer Findings in the Treatment of Anemia."

An interesting feature of the meeting was the exhibit arranged by Miss Elgira Nicholls of Phillips House, Massachusetts General Hospital, showing the different appetizing ways in which liver may be served. Among the dishes shown were: Liver in Aspic, Baked Stuffed Tomato with Minced Liver, Stuffed Peppers with Liver, Creamed Chicken Livers, Stuffed Baked Potato with Liver, and Planked Liver.

There were about one hundred and fifty present at this first meeting.

The rest of the program for the year, as mapped out by Miss Thelma Tubbs, Chairman of Program Committee, promises to be of equal interest.

The speaker scheduled for the November meeting is Mr. Snyder of Batchelder & Snyder Company, who will speak on "Purchasing."

This Association has rapidly grown and numbers between 75 and 100 active members, no one being eligible for active membership since 1924 unless they also become a member of the National Association.

The Officers elected for 1926–1927 are as follows: President, Quindara Oliver, Thompson's Spa; Vice-President, Gertrude Spitz, Massachusetts General Hospital, Out-Patient Department; Recording Secretary, M. Louise Elliott, Neighborhood Kitchen; Corresponding Secretary, Gretchen McMullen, Ye Brunswicke Shoppe, Boston; Treasurer, Thelma Tubbs, Peter Bent Brigham Hospital; Parliamentarian, Edith Lincoln, Wheaton College.

The Association was well represented at the Annual Convention of the American Dietetic Association held at Atlantic City. Among those attending were: Evelyn Pearson, Bradford Academy; Frances Stern, Boston Dispensary; Quindara Oliver, Thompson's Spa; Alice VanDyke, Cambridge Hospital; Gertrude Spitz, Massachusetts General Hospital; L. Wilma Pierce, Lynn Hospital; Jean Reyner, Boston Dispensary; Thelma Tubbs, Peter Bent Brigham Hospital; Mrs. Slater, Nutrition Bureau; Margaret McGovern, Boston City Hospital; Marion Floyd, Waltham Training School for Nurses; Miss Brown, New England Hospital for Women and Children; Blanche Collier, Massachusetts General Hospital, Out-Patient Department; and Rosina Vance, Massachusetts General Hospital.

The Washington Dietetics Association, at the October meeting, elected the following officers to serve for the ensuing year: President, Miss Louise Powley, Virginia Mason Hospital, Seattle; Vice-President, Miss Ruth Forsberg, Minor Hospital, Seattle; Treasurer, Mrs. Erminie Lamb, Lincoln High School, Tacoma; Secretary, Miss Estelle Nesbitt, Childrens Orthopedic Hospital, Seattle.

NEWS NOTES

Rhoda A. Tyler is now at the Grasslands Hospital, Valhalla, New York.

Margaret Craig, formerly of St. Luke's Hospital, Denver, Colo., is engaged in commercial work in Seattle, Washington.

Mary Ruetz writes that she is at the Children's Hospital, Denver, Colo.

Gertrude Brandt has recently taken a position at the Norwegian American Hospital, Chicago, Ill.

Martha Watter Marshall, formerly of the Good Samaritan Hospital, Lebanon, Pa., is now located at the Medico-Chi, Philadelphia, Pa.

Elizabeth Stillman may now be reached at 38 Granite Street, Westerly, R. I.

Amalia Lautz is spending the year in study at the University of Chicago.

Elizabeth Caughey Kichlu is now at the Protestant Episcopal Hospital, Philadelphia, Pa.

Mayme Lewis has left the City Hospital at Akron to go to the Saginaw General Hospital, Saginaw, Mich.

Agnes Moore writes that she has accepted a position at the State Tubercular Sanitarium, Howell, Mich.

Lillie Kate Brown, having completed her student dietetic work at Piedmont Hospital, Atlanta, Georgia, is now at Blackman's Health Resort, Atlanta, Ga.

Alice Dealey, formerly at the Diet Shop, Mineral Wells, Texas, has accepted a position as nutrition worker with the Judson Health Center, New York City.

Dorothy Knight Hassler's new address is; 10 Moss Avenue, Highland Park, Mich.

Dorothy Milavetz, formerly of the City Hospital, Cleveland Ohio, has gone to the North End Clinic, Detroit, Mich., as assistant director and nutrition worker in the metabolic clinic.

Mary Church Moir has left the Walter Fernald State School at Waverly, Mass., and may now be reached at 74 Jubilee Road, Halifax, Nova Scotia, Canada.

Helen Greene, whose former address was St. Petersburg, Fla., is now at the Corning Hospital, Corning, New York.

Breta Luther Griem's new address is; 621 Cramer Street, Milwaukee, Wis.

Lois Brownell has left the Greenville City Hospital, Greenville, S. C., to go to the Portsmouth General Hospital, Portsmouth, Ohio.

Helen Hauck, of 935 Dayton Street, Cincinnati, Ohio, has been traveling in Europe this summer.

Charlotte Addison, formerly of the New England Deaconess Hospital, Boston, Mass. is now at the Western Pennsylvania Hospital, Pittsburgh, Pa.

Lenore Weber Bennett's husband met with a serious accident in the late spring and has only recently been able to leave the hospital for his home where he is convalescing.

Margaret Butler has accepted a position at the Evanston Hospital, Evanston, Ill.

Annie E. Bradford, formerly of the Wentworth Hospital, Dover, New Hampshire, is now located at the Choate Hospital, Woburn, Mass.

Blanche Fickle writes that she is leaving St. Luke's Hospital, Jacksonville, Florida, to go to the Knoxville General Hospital, Knoxville, Tenn.

Blanche Eames recently accepted a position at the Providence Plantations Club, Providence, R. I. She was formerly at the Boston Lying-In Hospital.

Rosa L. Frankenfield, formerly of the Woman's Hospital, Philadelphia, Pa., may now be reached at the Westmoreland Hospital, Greensburgh, Pa.

Helen Wickert has accepted a position at the Newark Hospital, Newark, Ohio.

Jean Hawks writes that she has accepted a position with Dr. Wang at Michael Reese Hospital, Chicago. Miss Hawks' former address was the Burnham City Hospital, Champaign, Ill.

H. Ruth Johnson has left the Jefferson Hospital, Philadelphia, Pennsylvania, to go to the Charleston General Hospital, Charleston, W. Va.

Louise Holdman Withers is now at the Touro Infirmary, New Orleans, La.

Marjorie Hulsizer Copher's new address is: 4471 Forest Park Boulevard, St. Louis, Mo.

Helen C. Barcalow, formerly of the Western Pennsylvania Hospital, Pittsburgh, Pa. may be reached at the Suburban Hospital, Bellevue, Pa.

Isadora M. Wilson has accepted a position at the Washington Hospital, Washington, Pa. She was formerly at the Western Pennsylvania Hospital, Pittsburgh, Pa.

Mary Schapiro may now be reached at 65 West 95th Street, New York City.

Dortha Applegate writes that due to her father's death she found it necessary to give up her work for a while, but hopes to return to it shortly. Her present address is Anderson, Ind.

Grace Thompson, formerly of the Florida State College for Women, has accepted a position at the Vassar Hospital, Poughkeepsie, New York.

Octavia Hall Smillie's new address is 84 Summit Driveway, Hastings-On-The-Hudson, New York.

Eunice Longworth, having completed her work as a nutrition interne at the University of Iowa Hospital, has accepted a position with the Metropolitan Life Insurance Sanitarium, Mt. McGregor, New York.

Eva Thallman has been spending some time in study at Columbia University, New York City.

Anna J. McInnes has resigned her position at Jefferson Hospital as she found it necessary to return to her home in Lyon's Brook, Nova Scotia, Canada.

Alice Bollerud is now at the Jane Lamb Memorial Hospital, Clinton, Iowa.

Melanie Brieman, formerly of the Victory Memorial Hospital, Waukegan, Ill., has accepted a position with the Mt. Sinai Hospital, Chicago, Ill.

Annie Rosina Vance has left the Peter Bent Brigham Hospital to go to the Massachusetts General Hospital, Boston, Mass.

Frances Carscadden may now be reached at 62 Grand Avenue, North, Galt, Ontario, Canada. She was formerly at the Hartford Hospital, Hartford, Conn.

Ethel Casey, formerly of the Baptist Memorial Hospital, Winston-Salem, North Carolina, has accepted a position at the Lebanon Hospital, New York City.

Muriel Gowans is now located at 4233 W. 28th Street, Los Angeles, Calif.

Lillian Haskell is now at the Youngstown Hospital, Youngstown, Ohio. She was formerly at St. Mark's Hospital, Salt Lake City, Utah.

Lois McKelvy writes that she has been ill, but is hoping to start her work again shortly. Her present address is 407½ Grant Street, Cedar Falls, Iowa.

Mrs. Luther M. Lorance's new address is 611 South Asland Boulevard, Chicago, Ill.

Cora L. Merrit, formerly of the Baptist Memorial Hospital at Memphis, Tennessee, is now at the Southern Baptist Hospital, New Orleans, La.

Alice M. Moore has left Clifton Springs Sanitarium to go to the General Hospital, Buffalo, New York.

Agnes O'Dea is located at the Emma Willard School, Troy, New York.

Fairfax Proudfit's new address is 1781 Peabody Avenue, Memphis, Tenn.

MARRIAGES

Ethel Stevens to Hudson Bolinger, at Friendship, New York, on July thirty-first. At home, 970 Margaret Place, Shreveport, La.

Beatrice Fawdry to William A. Moffett, at Schenectady, New York, on August seventeenth. At home, 15 Sterling Place, Ridgewood, N. J.

Kathryn Weiss to Kenneth Peschan Otten, on April fourteenth. At home, 422 Sixth Avenue, Bethlehem, Pa.

Marjorie Cunningham to C. R. DeWitt. At home, Gebo, Wyo.

Blanche Phillips to Fred Reast. At Home, 1857 North Wilbur Street, South Bend, Ind.

Metta Megeath to Paul H. Streit. At Home, 288 Palisade Avenue, Yonkers, New York.

Dorothy Stewart to Dr. Harold Graves Waller. At home, 303 South Divison Street, Ann Arbor, Mich.

Gladys Norton is now Mrs. Eckley. She may be reached at the Jackson Park Hospital, Chicago, Ill.

ADDRESSES FROM WHICH MAIL HAS BEEN RETURNED

The Executive Secretary will be grateful for corrections

Galloway, Hazel Winders.....2400 Grand Avenue, Milwaukee, Wis.
Hall, Edith.....Christian Church Hospital, Kansas City, Mo.
Lee, Lydia.....17 Broadway, Boston, Mass.
Nelson, Esther.....416 Pine St., Yonklon, S. D.
Pontz, Bess.....175 Lexington Ave., care of Chislebro, N. Y. C.
Poor, Marguerite.....State Hospital, Howard, R. I.
Smith, Blanche.....57 South Washington St., Rochester, N. Y.
Smith, Clara.....3 Russian Hill Place, San Francisco, Calif.

NEW MEMBERS

(July, August, September)

Andrews, Hilda L.....Deaconess Hospital, Boston, Mass.
Atkins, Mrs. Viola.....MacDonald Hall, Ontario Agricultural College, Guelph, Ontario, Canada
Barkemeyer, Mrs. Helen.....Hospital of Good Samaritan, Los Angeles, Calif.
Barton, Lois L.....Loma Linda Sanitarium and Hospital, Loma Linda, Calif.
Bender, Mary C.....Hospital of the University of Pennsylvania, Philadelphia, Pa.
Bird, Annabel.....Episcopal Eye, Ear and Throat Hospital, Washington, D. C.
Clune, Genevieve R.....St. John's Hospital, Long Island City, L. I.
Cissna, Nelle.....Bethesda Hospital, Zanesville, Ohio
Conn, Mary D.....Hartford Hospital, Hartford, Conn.
Conwell, Winifred C.....U. S. Veterans' Hospital No. 27, Alexandria, La.
Cray, Eulalia.....Olivia Cottage, Loomis Sullivan Co., Loomis, N. Y.
Dearborn, Eleanor K.....Boston City Hospital, Boston, Mass.
DeWeese, Margaret W.....1222 Locust St., Philadelphia, Pa.
Densford, Neva.....Lock Haven Hospital, Lock Haven, Pa.
Durnell, Kathryn.....Columbia Hospital, Washington, D. C.
Evans, Mildred O.....Deaconess Hospital, Buffalo, N. Y.
Haack, Florence A.....600 S. Kingshighway, St. Louis, Mo.
Hall, Eloise E.....Alameda County Hospital, San Leandor, Calif.
Hansen, Ruth E. (Associate).....Michael Reese Hospital, Chicago, Ill.
Hart, Kathryn.....Hospital of Good Samaritan, Los Angeles, Calif.
Hess, Elsie E. (Associate).....Walter Reed Hospital, Washington, D. C.
Holmes, Wilma V.....Boston City Hospital, Boston, Mass.
Hurst, Edith.....St. John's Hospital, Cleveland, Ohio
Howe, Frederick W.....Pratt Institute, Brooklyn, N. Y.
Johnston, Iva.....French Broad Hospital, Ashville, N. C.

Kalsem, Millie E.....1200 Pleasant St., Des Moines, Iowa
Kenny, Edna E.....514 S. Capitol St., Iowa City, Iowa
Kroeger, Hermine E.....St. Vincent's Hospital, Los Angeles, Calif.
Lawton, Mary B.....Montreal General Hospital, Montreal, Canada
Linn, Dorothy R.....321 S. Ashland Ave., La Grange, Ill.
McMenomy, Isabella.....Ohio and Potomac Sts., Lutheran Hospital, St. Louis, Mo.
Mallory, Helen.....Mt. Sinai Hospital, Cleveland, Ohio
Monkley, Marion L.....Presbyterian Hospital, Philadelphia, Pa.
Moffat, Muriel M.....Vancouver General Hospital, Vancouver, Canada
Moore, Maniza.....Grace Hospital, New Haven, Conn.
Newcomb, Eleanor (Associate).....916 E. 15th St., Minneapolis, Minn.
O'Brian, Veronica (Associate).....426 E. 26th St., New York City
O'Hern, Elizabeth.....American Bosch Cafeteria, Springfield, Mass.
O'Lano, Ruth V.....Charity Hospital, New Orleans, La.
Pegram, Anna McKinnon.....Laurinburg, Scotland County, N. C.
Posson, Anna Milroy.....Park Avenue Hospital, Rochester, N. Y.
Reynolds, Hazel E.....420 E. 59th St., New York City
Roese, Minna G.....18 Lovering Avenue, Buffalo, N. Y.
Rodgers, Winifred (Associate).....170 Alexandria Blvd., Toronto 12, Canada
Ross, Florence W.....University Hospital, Iowa City, Iowa
Ross, Pearl.....Provident Hospital, Chicago, Ill.
Schuller, Helen J.....City Hospital, Indianapolis, Ind.
Shalla, Edna M.....508 Church St., Iowa City, Iowa
Sharpe, Grace G.....Allegheny Valley Hospital, Tarentum, Pa.
Shields, Mary A. (Associate).....1603 Clay St., Topeka, Kan.
Shutts, Angeline (Associate).....Walter Reed Hospital, Washington, D. C.
Smith, Thelma (Associate).....Presbyterian Hospital, New York City
Steininger, Grace A.....Western Oklahoma Hospital, Supply, Okla.
Stewart, Iva C.....Massachusetts General Hospital, Boston, Mass.
Stockwell, Martha M.....Polyclinic Hospital, Philadelphia, Pa.
Stuart, Catharine.....Glencoe, Ontario, Canada
Thompson, Grace C.....Vassar Hospital, Poughkeepsie, N. Y.
Truitt, Della B.....Columbia Hospital, Washington, D. C.
Valcourt, Ardele.....Hartford Hospital, Hartford, Conn.
Wallace, Bessie I.....Mt. Sinai Hospital, Cleveland, Ohio
Williams, Lillian C.....Middleton, Tenn.
Wilson, Isadora.....Washington Hospital, Washington, Pa.

REPORT OF THE INCOMING PRESIDENT

The following members of the Executive Committee were present at a meeting called in Atlantic City, October 13, 1926: Florence H. Smith, President; Phyllis Rowe, Vice-President; Quindara Oliver, Secretary; Frances Stern, Social Service Section.

Plans for the year were discussed as follows:

1. Convention city. Minneapolis, and St. Louis were approved tentatively, subject to the approval of a majority of the executive committee. The Executive Secretary was instructed to investigate regarding convention rooms, exhibit space and rates.

2. Placement bureau. The executive Committee recommends that a regular fee of $3.00 be charged to all persons registering with the Placement Bureau, and that an additional fee of $10.00 be charged the applicant when placed. Any persons eligible for membership in the Association are also eligible for registration in the Placement Bureau.

3. Organization of Association business. The Association business was divided into four groups and listed in order of their importance to the Association: (1) General Association business, (2) JOURNAL business, (3) placement bureau, (4) exhibit.

It was agreed that the work on exhibits should be delegated to a committee appointed by the President to work with the Executive Secretary and relieve the Executive Secretary of as much of the routine exhibits work as possible. This committee is to be appointed as soon as the convention city is selected.

4. Downtown office. The advisability of moving the office of the American Dietetic Association to a location readily available to all members and to other organizations, was discussed. The members of the Executive Committee present advised the President to look for a suitable location in the city of Chicago.

5. Executive meeting. The advisability of an Executive Committee meeting early in January was discussed. All members present agreed that Chicago was a suitable location for this meeting and that the date should be set as early in January as can be conveniently arranged.

6. Program. Each National Section Chairman was asked to be responsible for planning a program for four meetings. These programs

are to be published in the JOURNAL and used as a foundation for a study plan for state and local associations, if they so desire.

The section chairmen will turn in to the Editor of the JOURNAL each quarter a report of the Section activities. The first report should contain, if possible, the names of the Committee, the problem to be studied for the year, and the suggested program for National, State and local study.

In the end this will act as a guide for the National Program Chairman in planning for the 1927 convention program. More definite plans will have to be made regarding this work, but in the absence of the Program Chairman (Miss Margaret Sawyer) and the lack of a quorum of the Executive Committee, it was impossible to proceed.

7. A letter and report of the work done on the night of October 13, 1926 was sent to each absent member of the Executive Committee, asking her to write us her opinion of the matters discussed, in order that the year's work of the Association might begin at once. Every member has replied and the work is well started. In the absence of any provision in the constitution, the President is appointing an Editor for the JOURNAL, subject to the approval of the Executive Committee.

Section Chairmen for the year 1926–1927 have reported the following committees:

Section on Education

KATHRINE MITCHELL THOMA, *Chairman*, Michael Reese Hospital, Chicago, Ill.
EVA THALLMAN, Columbia University, New York City.
THELMA TUBBS, Peter Bent Brigham Hospital, Boston, Mass.
WINIFRED HOWARD, 2645 Bryant Avenue, St. Paul, Minn.
AMY MARLATT, University of Wisconsin, Madison, Wis.
HELEN HUBBELL, Yale University School of Nursing, New Haven, Conn.

Section on Social Service

FRANCES STERN, *Chairman*, The Boston Dispensary, Boston, Mass.
GERTRUDE SPITZ, Massachusetts General Hospital, Boston, Mass.
HELEN NICHOLS, Cornell Medical School, New York City.
RACHEL SAUNDERS, Infant Welfare Society, Chicago, Ill.
ANNA L. DE PLANTER, Philadelphia Child Health Society, Philadelphia, Pa.
FLORENCE E. BATESON, Johns Hopkins Hospital, Baltimore, Md.
CARLOTTA SLOAN, Lane Hospital, San Francisco, Calif.
BERTHA EDWARDS, East Harlem Health Center, New York, New York.

(Signed) FLORENCE H. SMITH, *President,*
St. Mary's Hospital, Rochester, Minnesota.

REPORT OF THE SECRETARY OF THE AMERICAN DIETETIC ASSOCIATION

Letters sent out	742
Applications received	237
Applications accepted as active members	160
Those acted on by last year's membership committee	16
Applications accepted as associate members	25
Applications rejected	16
Applications awaiting action of membership committee	26
Applications in the mail	9
Applications awaiting reply to request for more information	17
Associations communicated with regarding affiliation	11
Applications received	5
Accepted	2
Held for changes in Constitution	3
Other associations, approved for affiliation by last years membership committee, formally notified of acceptance	3

Associations communicated with regarding affiliation

British Columbia Dietetic Association
District of Columbia Dietetic Association
California State Dietetic Association
Chicago Dietetic Association
Massachusetts Dietetic Association
Minnesota Association of Hospital Dietitians
New York Dietetic Association
Philadelphia Dietetic Association
Quebec Dietetic Association
Rhode Island Dietetic Association
Rochester Dietetic Association

Of these one was already affiliated, the Quebec Dietetic Association. Three had been approved by last year's membership committee but had not been notified:

British Columbia Dietetic Association
Rochester Dietetic Association
New York Dietetic Association

Two affiliated during the year:

Massachusetts Dietetic Association
California State Dietetic Association

Three applications are held for changes:

Minnesota Association of Hospital Dietitians
Rhode Island Dietetic Association
Chicago Dietetic Association

Total expenses of secretary, exclusive of travelling expenses to annual meeting, $59.80.

Respectfully submitted,
LENORE WEBBER BENNETT, *Secretary*,
The American Dietetic Association.

REPORT OF THE PUBLICITY CHAIRMAN OF THE AMERICAN DIETETIC ASSOCIATION

The appointment of Publicity Chairman was not made until the fourth of August; as a result many plans for securing publicity for the Convention had to be passed by, but the Publicity Chairman endeavored to do the best she could in so short a time.

State Chairmen. It is usually customary for the National Chairman to select several members to serve on the National Committee as well as appoint a Chairman in each state. This year the National Chairman found it necessary to handle the work without the aid of a Committee. On August 11, a letter was sent to representative members in each state asking them to serve as State Chairmen. Twenty finally responded and agreed to serve. Of this number seven only sent a report of their activities.

Ordinarily, the writer believes that the State Chairmen could be valuable help in spreading publicity, but they should of course be appointed not later than June to do really effective work. This year, the National Chairman realized that it was too late to secure well organized services from the State Chairmen, so while she was glad to accept the aid of those who volunteered, she spent no time in pursuit of those who made no reply or failed to send a report.

News bulletins to members. Probably one of the most important tasks that a Publicity Chairman has to do is to inspire enthusiasm for the Convention among the members of the Association. Previous to the appointment of the Chairman, the Executive Secretary had sent out two Bulletins to members. The Publicity Chairman sent out the September and October Bulletins. Copies of all four of these Bulletins are attached.

Advance outside publicity. The Ambassador Hotel at their own expense greatly abetted this work, by sending out some splendid publicity from the hotel.

Advance publicity outside the organization was more difficult to secure because most of the periodicals in which we would be interested in placing publicity, go to press at least three months in advance of issue date. However, a list of magazines was selected, a letter written

to their editors with an advance notice of the Convention. The following magazines acknowledged the copy, and those starred were able to print advance notices. Those double starred said they would be glad to publish a post-Convention report:

The American Journal of Nursing**
The American Home Economics Association*
The American Food Journal**
The Nation's Health**
Restaurant News and Management*
Hospital Management**
The Survey
The Public Health Nurse*

It is the writer's intention to send reports of the Convention to the magazines asking for it as soon as she secures the information with which to do so.

Programs were sent to the Secretaries of all the State Medical Associations, together with letters asking them to draw the attention of their State Associations. Four State Secretaries acknowledged the program and letter.

Both Radio Station WPG at Atlantic City and the Board Walk News wrote us for publicity, but we were unable to coöperate with them.

During the Convention the Publicity Chairman issued a Convention Daily which was well received. Through the coöperation of the Publicity Director at the Ambassador, we were able to secure a large amount of good newspaper publicity in the Atlantic City and New York papers. Through the courtesy of Miss Mary Barber of the Kellogg Company, the Clipping Bureau of the Ayres Advertising Agency will forward us a sheaf of clippings concerning the convention; these have not yet been received.

(Signed) DOROTHY KNIGHT HASSLER, *Publicity Chairman,*
A. D. A. Convention, 1926.